NEW EQUIPMENT DIGEST

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November, 1952

Volume 17—Number 11

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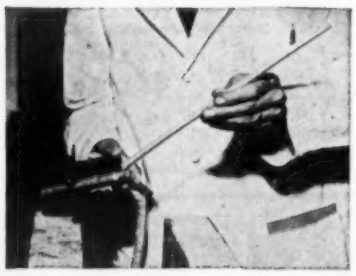
CHECK AND PASS ALONG

✓	NAME	See No.

Use Inquiry Slips—Pages 4 and 100

EQUIPMENT MATERIALS • PROCESSES • DESIGNS • APPLICATIONS • LITERATURE

METAL JOINING AGENT
bonds metals and nonmetallics



Metals can be joined to each other, to similar or dissimilar metals, or to nonmetallic materials such as ceramics, glass or wood at low heat and without pressure by ChemoTec bonding agent offered in rod, powder, paste and liquid forms. In rod form it is applied with a welding rod technique, but at a lower heat. Tensile strengths in excess of 5000 psi are possible. Bonding is by capillary and chemical action. High fluidity and wetting characteristics give the material penetrating power. Maximum strength is obtained from close-fitting joints, preferably with from 0.004 to 0.008-in. clearance. Part to be joined is broadly heated to 250 to 300° F. Made by **Eutectic Welding Alloys Corp.**, ChemoTec Div., Dept. P, 172nd St. & Northern Blvd., Flushing 58, N. Y.

▲ For more details circle **NED-2100** on enclosed inquiry slip ▲

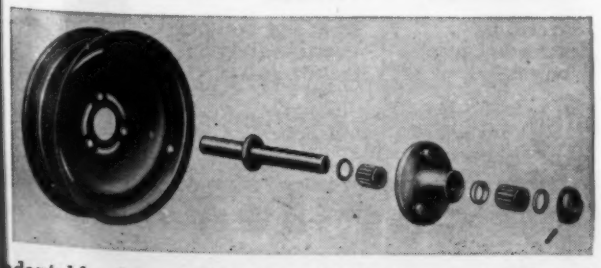
PIPE END-FINISHING MACHINE
deburrs, reams up to 2-in. OD stock

Variety of reaming and inside and outside deburring operations on up to 2-in. diameter welded steel tubing are handled by this portable bench-type end-finishing machine at production rates. Work is clamped and fed to cutting tools with single forward movement of hand lever. Adjustable swing-type stop operated by feed rack positions and gages for depth of cut. Interchangeable tool holders and chuck inserts for ¼, ¾ and 2-in. OD stock facilitate quick changeover from one job to another. Unit has three-speed sheave, ½-hp motor, weighs 170 lb, and has capacity for handling single-point boring, light forming and turning. Made by **Pines Engineering Co.**, 601 Walnut St., Aurora, Ill.

▲ For more details circle **NED-2101** on enclosed inquiry slip ▲

WHEEL-HUB-SPINDLE ASSEMBLY
adaptable to mobile equipment

Developed for light duty applications, packaged Economy wheel-hub-spindle-bearing assembly will handle loads of up to 750 lb per wheel. Assembly is



adaptable for production of all types of industrial and general utility pneumatic-tired wheeled equipment. It is possible to use up to 8.20 x 15 tires. Made by **Kelsey-Hayes Wheel Co.**, French & Hecht Div., 52 E. River St., Davenport, Iowa.

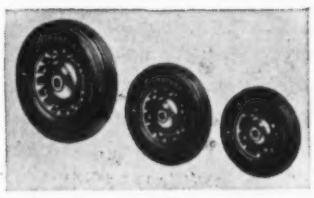
▲ For more details circle **NED-2102** on enclosed inquiry slip ▲

WIRE CUP BRUSH
has replaceable filler element

Removal of rust, scale, paint and welding slag from all types of equipment and surfaces is possible with this Rubberlokt wire cup brush. It has replaceable filler in which the wire bristles are anchored with rubber. Inner and outer metal adapters hold this filler. Features include balance, shock absorption and bristle retention. Wire gages from 0.014 to 0.028-in. will be available. Made by **Hewitt-Robins Inc.**, 240 Kensington Ave., Buffalo 5, N. Y.

▲ For more details circle **NED-2103** on enclosed inquiry slip ▲

PRESSED STEEL WHEELS
6 to 14-in. wheel sizes in line



Offered with semipneumatic, pneumatic or solid tires, load rating to 300 lb, and wheel sizes from 6 to 14 in., this line of pressed steel wheels for industrial applications has ball or oil retention type bearings. Tires do not creep on wheels which are offered with spray-baked enamel finish to customer specifications. Made by **Indus Corp.**, 431-N N. Holmes, Indianapolis 22, Ind.

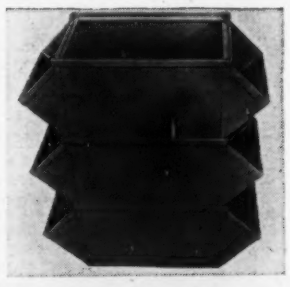
▲ For more details circle **NED-2104** on enclosed inquiry slip ▲

WORK GLOVES
have good gripping action

Good gripping action and long wearing qualities are provided by a closed, flexible metal zipper permanently bonded to fingers and palms in Armor Grip work gloves. Pliable synthetic rubber gloves offer protection against impact, cutting and abrasive wear. They are made in sizes and styles for all jobs requiring protection for palms and fingers. Made by **Surety Rubber Co.**, 226 Hall Ave., Carrollton, O.

▲ For more details circle **NED-2105** on enclosed inquiry slip ▲

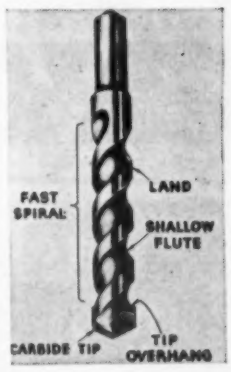
DOUBLE-ENDED BIN
stacking units serve two operators



Materials or components contained in double-ended Stackbins are instantly visible and accessible from both ends. Their use on continuous assembly operations makes it possible for them to serve two operators. When used for processing, they can serve two machine operators simultaneously. Bins are made of heavy gage steel, have index card holders and are finished with baked-on green enamel. Made by **Stackbin Corp.**, 1081 Main St., Pawtucket, R. I.

▲ For more details circle **NED-2106** on enclosed inquiry slip ▲

MASONRY DRILLS
remove dust during drilling



Oval flute and narrow land of this Live-Spiral masonry drill automatically lifts dust from hole as it drills, eliminating dust packing and lifting of drill to clean hole. Overhang on tip agitates masonry dust to augment hole cleaning action. Drill tip is Carboloy cemented carbide. Sizes from 3/16-in. up are available, and those up to ½-in. are for ¼-in. chuck. The ½-in. drill is also furnished with ½-in. shank. Larger sizes come with ½-in. shank only. Light duty, heavy duty and handyman kits are offered containing drills of the following respective sizes: 3/16, 1/4, 5/16 and 3/8-in.; 1/2, 5/8 and 3/4-in.; and 1/4, 3/8 and 1/2-in. Made by **General Electric Co.**, Carboloy Dept., 11163 E. Eight Mile Rd., Detroit 32, Mich.

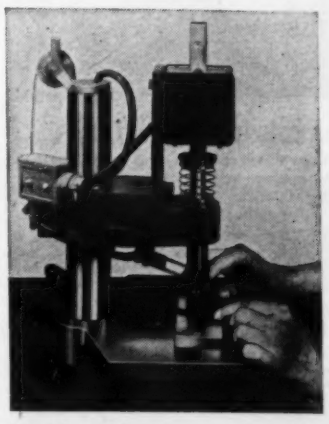
▲ For more details circle **NED-2107** on enclosed inquiry slip ▲

PALLET STACKING TRUCK
stacks 4000-lb loads 120 in. high

This 4000-lb capacity Worksaver pallet truck is designed to transport and stack skid bins or single-face pallets to heights up to 120 in. It features side caster wheels for stability and constant floor contact under all operating conditions. Pallet forks are used instead of conventional forks for minimum overall truck length and lowered fork height that will accommodate single-face pallets. Made by **Yale & Towne Mfg. Co.**, Dept. M-1, Roosevelt Blvd. & Haldeman Ave., Philadelphia 15, Pa.

▲ For more details circle **NED-2108** on enclosed inquiry slip ▲

STAKING MACHINE
operated by electric solenoid



All-electric in operation, the Electrostake staking machine is solenoid operated to minimize operator fatigue and afford high production. Both hold-down pressure and staking blow are fully adjustable. Portable unit, for assembly line operation, is capable of staking, eyeletting, upsetting and rolling. Operation is by foot switch, leaving both hands to hold the work. Staking blow cannot occur if the worker's hand, or any other object, is between the pressure pad and the work to be staked. Largest of three models delivers a maximum staking blow of 3000 lb impact. Hold-down pressure can be varied from a few ounces to 10 lb. Made by **Black & Webster, Inc.**, Dept. N-26, 445 Watertown St., Newton 58, Mass.

▲ For more details circle **NED-2109** on enclosed inquiry slip ▲

WHETHER IT'S ORIGINAL EQUIPMENT DESIGN OR CHANGING OVER TO AIR, YOU MAY SAVE ENORMOUSLY BY STANDARDIZING ON . . .

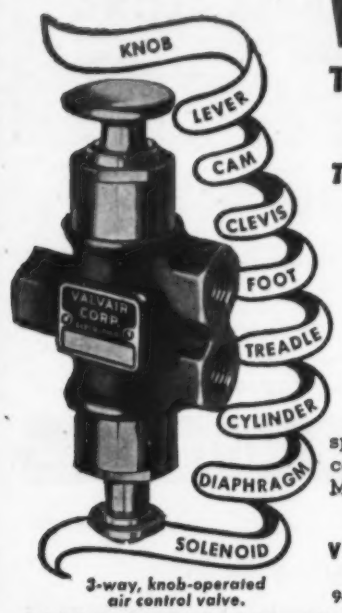
VALVAIRS

Thanks to Diversatility

★ ★ ★

ESPECIALLY ADAPTED TO TOOLING AND FIXTURE DESIGN

★ ★ ★



3-way, knob-operated air control valve.

• Valvair Diversatility is an exclusive, original form of standardization. Five basic bodies permit incorporating any one (or two) control assemblies with a standard valve body. Unique Valvair advantages enable us to speed your order at no extra cost. . . Sizes: ¼" through 1". May we fill your orders *now?*

Get new Bulletin "N-11".

VALVAIR CORPORATION
Affiliate: Sinclair-Collins Valve Co.
947 BEARDSLEY AVE., AKRON 11, OHIO

REPRESENTATIVES IN PRINCIPAL CITIES

Rely Upon Valvair — 2-WAY — 3-WAY — 4-WAY

For more details circle NED-2110 on enclosed inquiry slip

To Insure Prompt Action

Service to readers is a fetish with the entire NED staff. If you want information about a product which appears in the ads or editorial columns, we'll see that you get it.

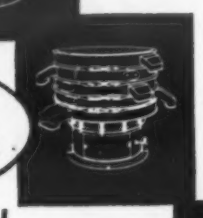
Infrequently, but disturbing nevertheless, we hear from a reader that his inquiry about something he saw in NED has not been answered. We welcome this sort of letter, because we can do something about it. If you ever run into this situation, please drop me a note.

During the course of a year, our inquiry department acts as go-between for more than a hundred thousand reader-manufacturer contacts. An equal number of inquiries from you readers are sent directly to manufacturers of products advertised or described in NED. When something goes awry on even one of these contracts, we would like to know about it.

Our editors and business department are constantly checking to be sure that only products made by reputable well-established manufacturers are announced or advertised in NED. We feel that we owe this to our readers. You are entitled to a prompt answer to your inquiry. If you don't get it, let us know. We'll help you get an answer. You have a right to this service.

A. N. Gregg
EDITOR

MODEL A-1D
48" Single Screen SWECO Separator



MODEL F-4D
48" Four Screen SWECO Separator

SWECO SEPARATORS

... are Engineered for Every Screening Need

- Efficient Single or Multiple Deck Screening
- Proved Greater Production Capacities
- From Coarse to as fine as 325 Mesh
- Wet or Dry Screening
- Low Cost Operation
- Unit Completely Self Contained with only Three Moving Parts
- Readily Adjustable Horizontal and Vertical Motion
- Clamp Ring Insures Rapid Screen Cloth Changes
- No Special Foundation, Supports or Base Required for Instant Production
- Production Separation with Laboratory Accuracy

MODEL H-1D3
18" Single Screen SWECO Separator

MODEL H-4D
18" Four Screen SWECO Separator

Both Standard and Custom-Engineered Models Available

Write now for new 8-page catalog

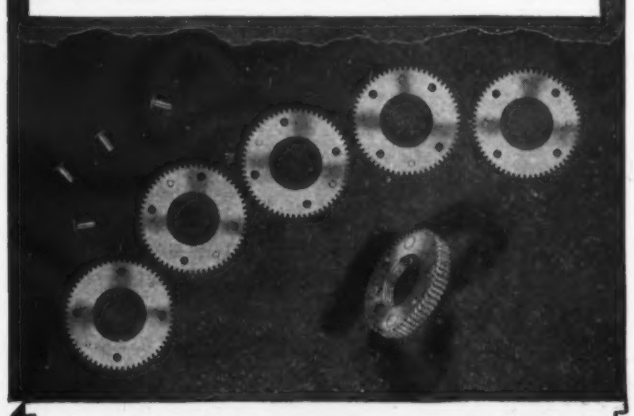
SWECO SEPARATOR DIVISION
SOUTHWESTERN ENGINEERING CO.
4800 Santa Fe Ave., Los Angeles 58, Calif.

For more details circle NED-2115 on enclosed inquiry slip

WINZELER *STAMPED* GEARS OFTEN SAVE UP TO 60 PER CENT!

WINZELER has developed fine *Stamped* Gear-making to a new high degree of perfection. Now, all tooling, stamping and assembling operations are performed with remarkable skill and precision. Compound precision dies hold flatness, tolerances and dimensions to exacting specifications. Individual stampings can be laminated and indexed to produce *wider faces!*

SEND FOR *samples, ideas and low estimates. Write or phone us your needs TODAY.*



WINZELER MFG. & TOOL CO.
1716 WEST ARCADE PLACE • CHICAGO 12, ILLINOIS

For more details circle NED-2111 on enclosed inquiry slip

PRESSURE TRANSMITTER can be used with almost any fluid and has 0 to 45-psi pressure range

Acids, alkalies, solvents, hot tar, food products and other dangerous or difficult-to-measure liquids can be handled by this pressure transmitter. It is for use with pneumatically-operated instruments for measuring the pressure of liquids and gases where a positive seal is needed between gaging system and the fluid measured. Two or more receivers, such as hydrostatic gages, manometers or pneumatically-operated recorders can be used with the same transmitter. When used in liquid level measurement, receiver can be graduated to show depth, weight or volume of liquid in vented or pressurized tanks. Standard transmitters have a pressure range of 0 to 45 psi. They require instrument air at 70 psi or higher and consumption is 4 cu ft per hour. Made by **King Engineering Corp.**, P. O. Box 530-A, Ann Arbor, Mich.

For more details circle NED-2113 on enclosed inquiry slip

BROWNING

First Again!

BROWNING SHEAVES

with "UNBREAKABLE" MALLEABLE IRON

SPLIT TAPER BUSHINGS

WRITE FOR THE NAME OF THE BROWNING DISTRIBUTOR NEAR YOU

BROWNING MANUFACTURING COMPANY
MAYSVILLE, KENTUCKY, U. S. A.

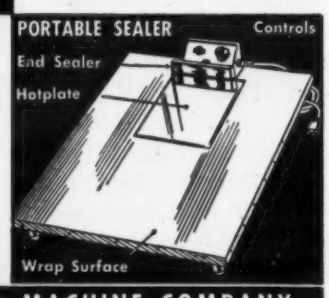
For more details circle NED-2116 on enclosed inquiry slip

NEW HEAT-SEALERS!

CRIMPMASTER "B"

SEALS FILM BAGS FASTER!
Foot pedal frees hands. Both jaws heat. Air-tight, waterproof sealing of Polyethylene, Saran, Pliofilm, etc., including Gov't Spec. Barrier Materials. Uses 110V, AC. Seals through saddles or labels. Thermo-control to 550°. Teflon covers for "soft" films. What films do you want to seal faster and better, at less cost?

A COMPLETE, COMPACT UNIT!
Convenient plug-in unit combines wrapping surface with 175°-500° hotplate, for wrapping and sealing any shape of product or package within a heat-sealing plastic film. Protect and display your products in film wraps for faster sales, whether product is food or miscellaneous merchandise.
$34.95 - 17 lbs. - F.O.B. Cleveland



CLEVELAND LATHE & MACHINE COMPANY
MANUFACTURERS OF HEAT-SEALING AND PACKAGING EQUIPMENT

Home Office & Plant: Dept. 88, 5400 Brookpark Rd., Cleveland 29, Ohio
New York Office: Dept. 88, 799 Broadway, New York 3, New York

Please send information on the items checked, without obligation to me:
Name ____
Address ____
City & Zone ____ State ____
☐ Crimpmasters
☐ Hotplate Units
☐ Hand Sealers
☐ Bag Loaders
☐ Closures, Tags

For more details circle NED-2112 on enclosed inquiry slip

OUTSTANDING VALUES BY AMERICA'S LARGEST BUILDERS OF DIVIDING HEADS

You can't beat them for accuracy, ruggedness, quality.

L-W Model SD 6½" Swing DIVIDING HEAD

Spindle Threaded 1½"-8 to fit L-W 5" Universal Chuck

• ACCURATE • RUGGED • 36 LB. • QUALITY CONSTRUCTION Only $119.30

Heavy duty headstock and tailstock designed for maximum rigidity. Alloy steel threaded headstock spindle with extra large tapered bearing and take-up adjustment collar. Head tilts to 90° in vertical position. Alloy stress-proof steel worm and accurately cut worm wheel cut to close limits for accuracy. Ball bearing thrust and adjustable for end play. Complete with three index plates for dividing all numbers to 50 and even numbers to 100, except 96T. Index chart shows all divisions obtainable to 380. Right or left hand models.

Model BP 11" Swing for plain milling machines. Shipping weight, 140 lbs. $199.54

Model AU 11" Swing. Fully Universal for complete indexing and spiral cutting. Shipping weight, 190 lbs. $296.06

Order from your industrial supply distributor or order direct, giving name of your distributor.

L-W CHUCK COMPANY 51 So. St. Clair St. Toledo 4, Ohio

For more details circle NED-2114 on enclosed inquiry slip

NEED A HEATER?
FOR SPOT AND EMERGENCY HEATING

Use the HY-LO Oil Burning Salamander!
EASILY PRODUCES 140,000 BTU PER HOUR OF CLEAN HEAT AT LOWEST COST.
No other heater like it! Many advantages make HY-LO your best buy . . .

GREATEST RADIANT HEAT

LESS CLEANING THAN ANY OTHER SALAMANDER
NO WICKS, JETS, VALVES OR PRESSURES
EXCLUSIVE EXTINGUISHING DAMPER
IDEAL FOR STANDBY HEAT INDOORS OR OUT-OF-DOORS

Wire or write for name of your nearest HY-LO distributor

HY-LO
Oil-Burning Salamander

SCHEU PRODUCTS COMPANY
286 STOWELL STREET • UPLAND, CALIF.

THE ONLY SALAMANDER WITH THE RETURN GAS STACK

For more details circle NED-2117 on enclosed inquiry slip

THE BEAM COMPASSES 72 inches Radius Capacity in the palm of your hand. Fast, Accurate, delightful to use. Only one hand needed to guide the scriber pin. The housing swings freely around the centerpin. Spring loaded lever holds beam in locked position. For the Layout Man in the shop it is

A RULE WITH SCRIBERS ON BOTH ENDS for straight line layout, quickly set to correct dimensions.

THE BOW COMPASSES six inches Radius Capacity. Quick Change, Selflocking, Slow Motion Adjustment in one mechanism of stunning simplicity. No threads, only a smooth rod and a trigger. Light weight and perfect balance.

ASK YOUR DEALER OR WRITE US FOR MORE DETAILS.
THE OMICRON CO. DEPT. E1 BOX 907, GLENDALE, CALIF.

For more details circle NED-2118 on enclosed inquiry slip

Speed Up Material Handling

Here's a handy, mobile crane for lifting or loading jobs around your plant. Ideal for dismantling, moving or erecting machinery . . . loading and unloading structural iron, pipe, bars, lumber and equipment of all types. The UNIT 357 is self-propelled . . . rides on rubber at road travel speed . . . is easy to maneuver even in cramped yard conditions. Operated by ONE man . . . powered by ONE engine . . . swings in a 360° circle. Full vision cab gives complete visibility. Promotes Safety. Write for Catalog.

UNIT CRANE & SHOVEL CORP.
6607 W. Burnham Street, Milwaukee 14, Wis., U. S. A.

UNIT
CRANES • CLAMSHELLS • MAGNETS

For more details circle NED-2119 on enclosed inquiry slip

NEW LOW COST
Modern Design WORK BENCHES

Basically New Design and Mass Production Makes Possible Savings up to 40%

New Sturdi-Bilt exclusive patented "Tension Bolting" revolutionizes work bench construction! Assures rigid, vibration-free frames, economical shipping, mass production and low cost. New type Sturdi-Bilt tops are warp and splinter-proof, dent and abrasion resistant, have twice the hardness of hardwoods. Adjustable legs. Available with or without drawers in four sizes. For full details, specifications, prices, write for special Bulletin No. 303.

USED AND APPROVED BY LEADING COMPANIES

STURDI-BILT STEEL PRODUCTS, INC.
624 S. MICHIGAN AVE., CHICAGO 5, ILLINOIS

For more details circle NED-2120 on enclosed inquiry slip

RESISTANCE WELDER SAFEGUARD
prevents condensation—saves water

By preventing condensation, this Water Saver protects resistance welding transformer from eventual electrical failure. It reduces water flow and minimizes sweating, rust, corrosion and mineral deposits. Whenever welding operation is stopped for more than 1½ minutes, device stops water flow. Control can also be used to cut down the needless flow of gas used in welding operations. Made by **Robotron Corp.**, 21310 W. Eight Mile Rd., Detroit 19, Mich.

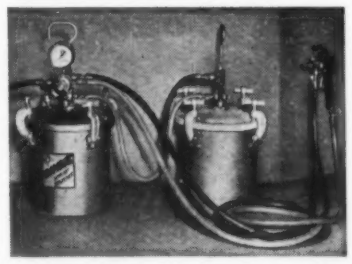
For more details circle NED-2121 on enclosed inquiry slip

FLUORESCENT BALLAST
provides independent lamp circuits

Designed for two 40-w Rapid Start fluorescent lamps, the Lead-Lag ballast provides independent lamp circuits, normal operation of ballast and remaining lamp if one lamp should fail, instant spotting of faulty lamps and maximum stroboscopic correction. Ballast is quiet, as small as present series types and weighs only 6½ lb. Made by **Jefferson Electric Co.**, 903 S. 25th St., Bellwood, Ill.

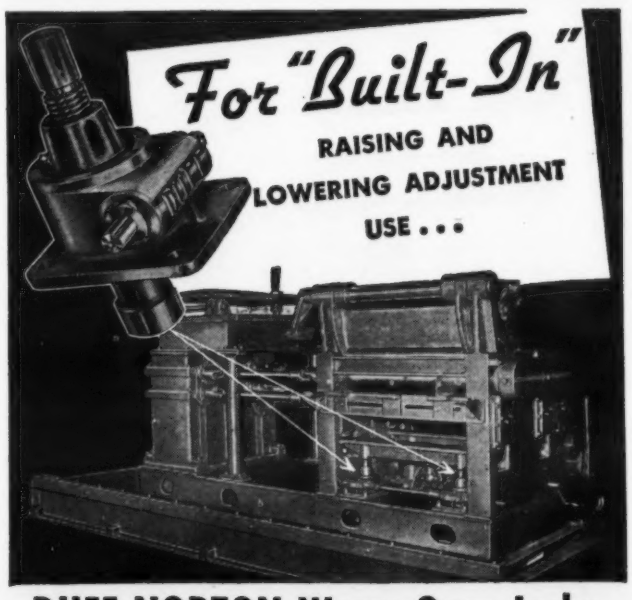
For more details circle NED-2122 on enclosed inquiry slip

SPRAY PAINTING GUN
for applying epon resin paints



Correct balance between paint and catalyst, necessary to successfully applied epon resin paints, is effected by this spray painting gun which blends the paint and catalyst with dual-feed head on the gun. Because of the rapidity with which the paint sets up after the catalyst is added, the two are blended after they leave the gun. The exterior location of the catalyst nozzles allows the operator to keep an eye on the catalyst flow. Complete unit consists of the gun, air line and lines for paint and catalyst, two pressure tanks (one each for paint and catalyst), gages and fittings. Catalyst painting system, developed by Glidden Co. and using Nu-Pon A finish, is for use on exterior steel structures exposed to abrasion, weathering and airborne chemicals. Gun made by **Binks Mfg. Co.**, Dept. NED, 3122 Carroll Ave., Chicago 12, Ill.

For more details circle NED-2123 on enclosed inquiry slip



DUFF-NORTON Worm Gear Jacks

These jacks may be used singly, in tandem or in groups of four, six or eight, connected by means of shafts or mitre gears for raising and lowering mill tables, machine beds, presses, and many other applications. Capacities vary from 5 to 50 tons, with raises from 3" to 25". Jacks are furnished in accordance with load per jack, raise required and application.

For suggested applications write for Bulletin AD-5 H.

THE DUFF-NORTON MANUFACTURING CO.
MAIN PLANT and GENERAL OFFICES, PITTSBURGH 30, PA.
CANADIAN PLANT, TORONTO 6, ONT.
"The House that Jacks Built"

For more details circle NED-2124 on enclosed inquiry slip

IDEAL Thermo-Grip Does Soldering Jobs Better!

Thermo-Grip with "Plier" attachment speeds up soldering lugs to cables.

FASTER! Resistance heating provides instant heat for fast production soldering.

EASIER! One hand always free to handle solder. Concentrates heat. Does jobs no other tool can handle.

CHEAPER! Time savings up to 30%—no waste — no cold flow joints—no re-makes.

NEW LOW-COST MODEL

Sold Through America's Leading Distributors

"Standard" 1000-Watt Model with "Plier", "Pencil" and "Fork" attachments also available.

TEST IT FREE!

IDEAL INDUSTRIES, Inc.
1032 Park Avenue
Sycamore, Illinois

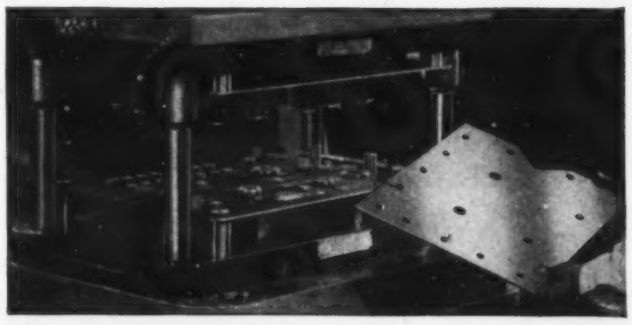
Please arrange FREE Thermo-Grip Demonstration and send catalog data.

NAME
COMPANY
ADDRESS
CITY ZONE STATE

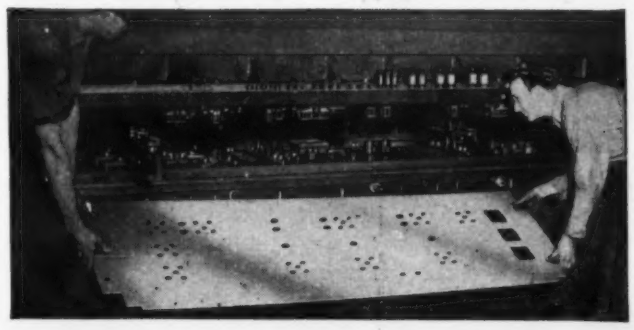
For more details circle NED-2125 on enclosed inquiry slip

New • Fast • Proven

LOW COST METHODS for PERFORATING and NOTCHING SHEET METALS

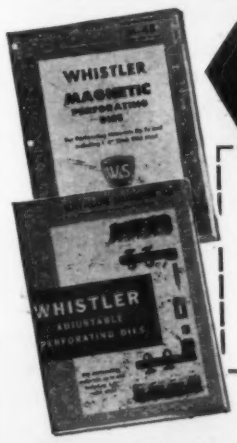


Whistler *MAGNETIC* Dies at work in large inclinable press. Magnetized retainers hold the units. No bolting required. A fast, economical method in making up a punch and die set for short or long runs. All parts re-usable.



Whistler *ADJUSTABLE* Dies on perforating and notching job, using Tee slotted die set. With Whistler Adjustable Punch and Die units production starts within hours instead of weeks. Last minute job changes made quickly.

REDUCE DIE COSTS... All units and parts are interchangeable and used repeatedly in different arrangements. **INCREASE PRESS PRODUCTION**—*Down time is minutes as compared to hours for changeover.* For precision work in all types and sizes of presses. **START PRODUCTION AT ONCE.** Pierce materials up to ¼" thick mild steel. Standard sizes and shapes available up to 3 inches. Special sizes to order.



Here are the complete details with prices and application illustrations. Send for these catalogs. No obligation.

NAME
FIRM
ADDRESS
CITY ZONE STATE

S. B. WHISTLER & SONS, Inc.
Adjustable, Magnetic, Custom and Cam Dies for all Industry
750 Military Road Buffalo 23, New York

For more details circle NED-2126 on enclosed inquiry slip

STEEL

Every Kind

Some steel products are in short supply but over-all stocks are still large, diversified

NEARBY STOCKS INCLUDE:

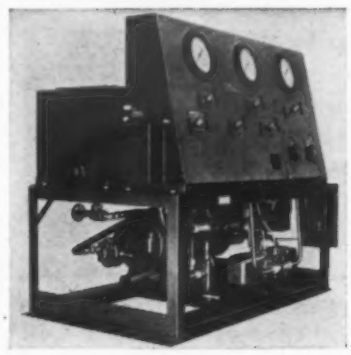
BARS—carbon & alloy, hot rolled & cold finished
STRUCTURALS—channels, angles, beams, etc.
PLATES—U, M. & sheared, Inland 4-Way Floor Plate
SHEETS—hot & cold rolled, many types & coatings
TUBING—seamless & welded, mechanical & boiler tubes
STAINLESS—Allegheny sheets, plates, bars, tubing, etc.
REINFORCING bars & access.
BABBITT bearing metal
MACHINERY & TOOLS for metal fabrication

RYERSON

Joseph T. Ryerson & Son, Inc. Plants: New York, Boston, Philadelphia, Detroit, Cincinnati, Cleveland, Pittsburgh, Buffalo, Chicago, Milwaukee, St. Louis, Los Angeles, San Francisco Spokane, Seattle

▲ For more details circle NED-2127 on enclosed inquiry slip ▲

GAS PRESSURE BOOSTER
for bottled gas service



Bottled gas at pressures from 300 to 1200 psi is boosted to any given output pressure up to 12,000 psi by this hydraulically driven compressor. Used extensively in guided missile work, machine delivers 1.5 cfm of gas up to 1250 psi over input bottle pressure with a 10-hp motor and approximately 0.9-cfm from 1250 psi up to maximum receiver pressure. Made by **Haskel Engineering & Supply Co.,** 721 W. Broadway, Glendale 4, Calif.

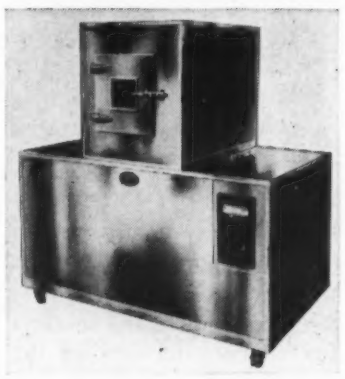
▲ For more details circle NED-2130 on enclosed inquiry slip ▲

FOLDING RULE
features spring-loaded joint

Coil spring joints employed in line of Royal Eagle folding rules assure smooth action, accuracy and nonloosening joints. Tests have shown that joint is tight even after 75,000 cycles. Rules are available in 4, 6 and 8-ft lengths, with regular or inside marking, and with folding hook. Made by **Eagle Rule Mfg. Corp.,** 510 Hunts Point Ave., New York 59, N. Y.

▲ For more details circle NED-2131 on enclosed inquiry slip ▲

TEMPERATURE TEST UNIT
has —100 to 250°F temperature range



Providing high or low temperatures and selective humidity, model A-4½-100FHH test chamber has range from −100 to 250° F. It can be cycled from ambient temperature to −100° F in 45 minutes and from this figure to 200° F in 30 minutes. Temperatures are governed by a controller with scale range from −200 to 400° F. Wet and dry bulb humidity controller provides 95 per cent relative humidity at between 75 and 95° F. Vacuum equipment can be added. Test chamber measures 20 x 20 x 20 in. and has observation port and moistureproof light. Made by **Webber Appliance Co.,** Industrial Freezer Div., 2740-N Madison Ave., Indianapolis 3, Ind.

▲ For more details circle NED-2132 on enclosed inquiry slip ▲

#1 RPM CHECKER
For checking average RPM of Motors, Shafts, etc.

This tool is a revolution counter with a built in, synchronized, antimagnetic stopwatch. Speed range, 0 to 5000 RPM, clockwise or counter-clockwise rotation.

Solid brass mechanism, nickel plated brass housing, in leatherette case. Price $35.

Catalog available: MILLING MACHINE CLAMPS, DIE-HANDLING TABLES, WIRE ROPE CUTTERS, DRILL PRESS VISES, HAND SPRING WINDERS and RPM CHECKERS. **Montgomery—Tool Room Specialties,** 60 Murray St., New York 7, N. Y. *Advt.*

▲ For more details circle NED-2134 on enclosed inquiry slip ▲

Striping is easy

GRAVITY MARKER A low cost model for marking aisles, loading zones, parking lots. Paints sharp, clear lines 2", 3" or 4" wide on any surface. Protects employees from danger.

ECONO-LINER spray paints continuous or skip lines 2" to 6" wide. Adjustable, free-floating paint guides follow contour of any surface. Converts to a portable spray rig for painting.

Paints lines within ⅛" of fixed objects or stacked cartons.
Paints sharp, clear lines on concrete, wood block, black top, brick or any surface.

UNIVERSAL MFG. & SALES CO.
5211 Pacific Blvd., Huntington Park 1, Cal.

Mark-Rite LINE MARKERS

▲ For more details circle NED-2128 on enclosed inquiry slip ▲

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FREE CATALOG
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STANDARD CUTTING TOOLS

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. . . from your ILLINITE distributor or write
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PUT *Electric* HEAT WHERE YOU WANT IT

TO REDUCE COSTS, IMPROVE PRODUCTION

CHROMALOX
Electric HEATING UNITS

Chromalox Electric Heaters give fast, uniform and dependable heat for heating gases, liquids, viscous fluids; platens, dies, molds, ovens, soft metals and countless other heating uses. They install easily and quickly, provide concentrated and controlled heat that is safe, dependable, clean and economical. Put time and money saving Chromalox Electric Heat to work in your plant now.

Write for "100 WAYS TO APPLY ELECTRIC HEAT"

It's filled with application ideas on versatile, low-cost Chromalox Heaters. Send for your copy now.

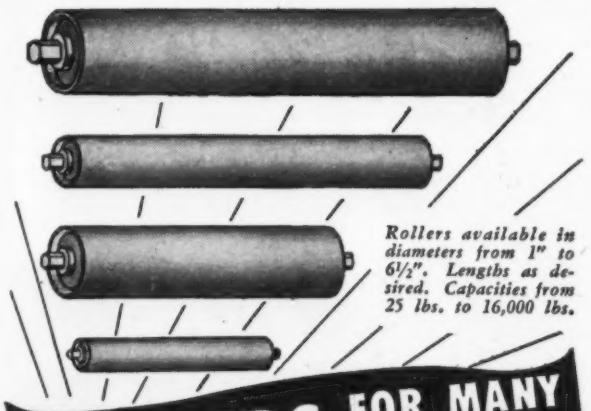
IB-17

Industrial Div., EDWIN L. WIEGAND CO., 7509 Thomas Boulevard, Pittsburgh 8, Pa.

See other advertisement on page 71

CHROMALOX
ELECTRIC HEAT FOR MODERN INDUSTRY

▲ For more details circle NED-2129 on enclosed inquiry slip ▲



Rollers available in diameters from 1" to 6½". Lengths as desired. Capacities from 25 lbs. to 16,000 lbs.

ROLLERS FOR MANY PURPOSES

Logan Rollers are designed primarily for use in Roller Conveyor, but are suitable for many other purposes. Examples are machine parts, feed and guide rolls, truck beds, coil boxes, etc. Rollers are tubular type with ball bearings and either round or hexagon shafts. Bearings can be plain, dust protected, grease packed, or pressure lubricated.

Further information on request.

Logan Conveyors

LOGAN CO., 215 CABEL ST., LOUISVILLE, KY.

▲ For more details circle NED-2133 on enclosed inquiry slip ▲

How to Cut Cleaning Costs with
Bennett Bilt WASTE RECEPTACLES

IN YOUR PLANT

Everybody is automatically a member of your cleaning department by conveniently placing Bennett Bilt Waste Receptacles to invite their use. These waste receptacles are sanitary, economical and a major help to cleanliness and neatness. Put them to work for you and reduce cleaning costs.

Only Bennett Bilt
WASTE RECEPTACLES
HAVE ALL THESE FEATURES

- Non-rusting stainless steel feet eliminate rusting and rust marks
- Made of extra heavy-gauge corrosion resistant steel
- All welded construction
- Smooth exterior surface . . . nothing to catch and tear clothes
- Reinforced corners
- Self-closing mechanism assures closed doors when not in use and permits easy opening of independent doors with finger-tip pressure
- Rounded corners for structural strength and pleasing appearance
- Baked enamel finish . . . white or green

• These are a few of the many features that make Bennett Bilt Waste Receptacles a natural "buy".

THE BENNETT MANUFACTURING COMPANY
ALDEN, N. Y.

▲ For more details circle NED-2136 on enclosed inquiry slip ▲

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PERMIT NO. 36
Sec. 34.9 P. L. & R.
Cleveland, Ohio

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CLEVELAND 13, OHIO

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Principal Products Manufactured .....

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Have You Filled-In Your Name and Address?

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To obtain additional information on any items in this issue of NEW EQUIPMENT DIGEST, circle numbers below which correspond with those of desired items. Your request will be forwarded promptly to manufacturer. Please give your name, title, company and address. This postage-free mailer should be folded as indicated for mailing.

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2101	2151	2201	2251	2301	2351	2401	2451	2501	2551	2601	2651	2701	2751	2801	2851	2901	2951	3001	3051	3101
2102	2152	2202	2252	2302	2352	2402	2452	2502	2552	2602	2652	2702	2752	2802	2852	2902	2952	3002	3052	3102
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2145	2195	2245	2295	2345	2395	2445	2495	2545	2595	2645	2695	2745	2795	2845	2895	2945	2995	3045	3095	3145
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2149	2199	2249	2299	2349	2399	2449	2499	2549	2599	2649	2699	2749	2799	2849	2899	2949	2999	3049	3099	3149

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112

NAME ..... TITLE .....

COMPANY .....

ADDRESS .....

CITY ..... ZONE ..... STATE .....

Principal Products Manufactured .....

..... Approx. Number of Employees in Plant .....

Check Invested Capital Rating of Your Company

- ☐ Over $1,000,000
- ☐ $500,000 to $1,000,000
- ☐ $200,000 to $500,000
- ☐ $75,000 to $200,000
- ☐ Under $75,000

R-B punches and die buttons are instantly removed—quickly inserted—yet with a push and a twist they are firmly locked and aligned in the retainer. A spring-loaded ball lock in R-B retainers produces the positive radial alignment and vertical locking; no additional keying is necessary. Through standardization of unique design concepts, R-B punches and dies cut press down time for replacements to a minimum.

Tool standardization is the basis for efficient and economical production. With R-B you get the accepted standard of the sheet metal industry—in standard design features that save in engineering, die construction and operation.

For further information on how you can save time in die operation, write to—

ALLIED PRODUCTS CORPORATION
RICHARD BROTHERS DIVISION
DEPT. 66 • 12629 BURT ROAD • DETROIT 23, MICHIGAN

For more details circle NED-2137 on enclosed inquiry slip

How do your aluminum castings rate on this quality

Check List

Freedom from Pinhole Porosity?
Is a casting from every heat checked for pinhole porosity? That's the practice at Acme.

Close Dimensional Tolerances?
Are your aluminum sand castings up to 1/64" accurate on small sizes, 1/32" on large? They are at Acme.

Freedom from Hidden Defects?
Are you machining your castings only to discover hidden defects? Foundry practice at Acme makes use of X-ray.

Accurate Mechanical Properties?
Are mechanical properties tested by an actual section from a casting? They are at Acme.

If you want to know more about Acme's remarkable facilities and Acme's 6-point laboratory control, write for latest bulletin. Requests for quotations given prompt attention.

Acme TRIPLE A Foundry Division
ALUMINUM ALLOYS, INC.
216 N. FINDLAY ST., DAYTON, OHIO

For more details circle NED-2138 on enclosed inquiry slip

REEFER PROBLEMS?

Engineering Bulletin #103K describes fully the Ace REEFER KING pallet roller and the simplified method of palletized loading and unloading of slatted deck reefer cars.
Eng. Bulletin #103K on request.

FRANK L. ROBINSON COMPANY
INDUSTRIAL ENGINEERS • MANUFACTURERS • DISTRIBUTORS
LATHAM SQUARE BLDG. OAKLAND 12, CALIFORNIA

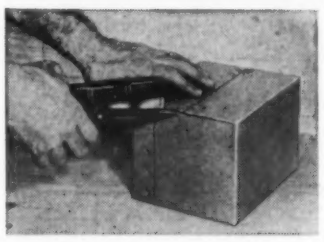
For more details circle NED-2139 on enclosed inquiry slip

ARC DRILLING UNITS
cut holes as small as 0.030-in.

Equipped to cut or arc-drill any metal of any hardness or thickness from magnesium to diamond hard steel, the M-300 Electron drill can cut holes as small as 0.030-in. and adjusts for coarse, fine, extra fine and super fine finishes. Automatic power feed, which allows continuous operation, is so sensitive that if particle of metal should create a short in drilling, feed will back out and clear itself. Drill can also cut square, hex, crescent of other odd-shaped cavities. One inch of electrode will drill one inch of tool steel and cut as much as 33 in. of hardened steel, depending upon type of electrode used. Made by **Elox Corp. of Michigan,** 742 N. Rochester Rd., Clawson, Mich.

For more details circle NED-2140 on enclosed inquiry slip

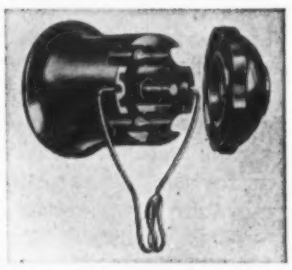
PACKAGE STAPLING PLIER
blade inserts through fold of box



Usable principally for setting up and sealing corrugated containers, model P6-8P stapling plier has narrow piercing blade which is quickly and easily inserted through a fold of the container, making a small slit. Simple squeeze of handle drives and clinches a strong staple to form a secure fastening. Plier holds a strip of 80 staples which are sturdy enough to fasten even tough corrugated board. List price is $9. Made by **Bostitch,** 865 Mechanic St., Westerly, R. I.

For more details circle NED-2141 on enclosed inquiry slip

PIN-TYPE LAMPHOLDER
equipped with weatherproof socket



Need for stripping, splicing, soldering or taping various types and sizes of wire, including No. 10, is eliminated by this weatherproof pin-type socket for indoor or outdoor use. It makes punctures so small that neither insulation or wire are injured. Both wire and lampholders can be used over and over. Unit passes Underwriters' crush test and has brass contacts. Detachable galvanized wire hook is supplied. Made by **John I. Paulding, Inc.,** 100 Kings Highway, New Bedford, Mass.

For more details circle NED-2142 on enclosed inquiry slip

POCKETED CHAIN SHEAVES

David Round offers the most comprehensive list of pocketed chain sheaves available, and also supplies perfect fitting chain for them. DR Sheaves are used for many purposes such as operation of overhead valves, heavy furnace doors, certain types of power drives and hoisting devices. DR Bulletin 75-SH gives full information.

DAVID ROUND & SON
35025 Aurora Road
CLEVELAND 22, OHIO

Manufacturers of CHAIN HOISTS • ELECTRIC HOISTS • I-BEAM TROLLEYS • CRANES • WINCHES

David Round DR DAVID ROUND HOISTS & CRANES

For more details circle NED-2143 on enclosed inquiry slip

For maximum "see-ability"... better work...increased production

LUSTRA JADE-LITE

LUSTRA JADE-LITE gives a special quality of light that steps up "see-ability". In addition, its unique tone reduces glare, helps eliminate eye-strain, produce better work and boost production. Jade-Lite is absolutely tops for use in critical work areas. Write for the whole story on Jade-Lite Fluorescent Tubes—it can bring new efficiency and economy. Lustra Corporation, Dept. R-11, 36 Washington St., Brooklyn 1, N. Y.

Lustra
AMERICA'S DATED LAMPS

DOUBLE DUTY REFLECTOR LAMPS, INCANDESCENT LAMPS, FLUORESCENT TUBES, SPOTLITES AND FLOODLITES, RUGGED DUTY LAMPS, FLUORESCENT FIXTURES AND STARTERS

For more details circle NED-2144 on enclosed inquiry slip

New High-Performance FLOW METERS

Basic advances in the complete new line of Foxboro Orifice-Type Flow Meters now afford higher sustained accuracy with less maintenance than ever before obtainable.

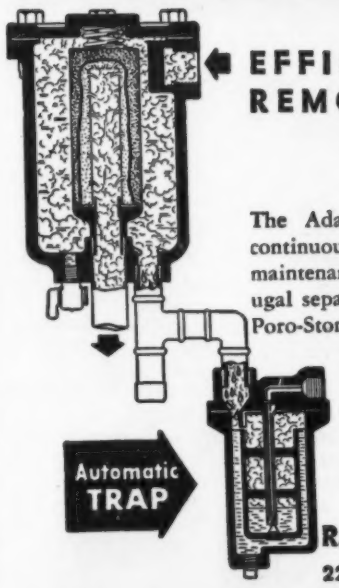
Advanced features include: new improved Segmental Drive Assembly, new friction-free Pressure Seal Bearing, new positive-seating, submerged Check Floats, new self-aligning U-Bend and Damping Plug Assembly, new compact Float Chamber, and complete interchangeability of round and rectangular case models.

Get complete details. Write for Bulletin 460. The Foxboro Company, 6611 Neponset Ave., Foxboro, Mass., U. S. A.

FOXBORO Reg. U. S. Pat. Off. FLOW METERS

For more details circle NED-2145 on enclosed inquiry slip

Poro-Stone Filtration
FOR COMPRESSED AIR



EFFICIENTLY REMOVES:
OIL, WATER PIPE SCALE

The Adams *Poro-Stone* Filter gives continuous service without attention or maintenance expense. Efficient centrifugal separation *plus* diffusion through Poro-Stone, removes contamination completely without pressure loss. Automatic Trap eliminates attention, and assures continuous and efficient filter operation. Write for complete data—Bulletin 176.

R. P. ADAMS CO., INC.
227 E. Park Dr., Buffalo 17, N. Y.

ADAMS *Poro-Stone* AIR FILTER

For more details circle NED-2146 on enclosed inquiry slip

Have you heard about

THE LUBRICANT OF MANY USES

Moly-sulfide ?

A LITTLE DOES A LOT

In the shop—In the field

Moly-sulfide is a solid-film lubricant, highly successful in applications involving extreme pressures, high velocity, fretting, elevated temperatures and other difficult frictional conditions. We have compiled detailed records of 154 different applications of molybdenum sulfide to actual shop and field problems—some of which might be similar to your own.

Shopmen, engineers, lubrication specialists—write now for a copy of this new 40-page booklet.

SEND FOR THIS FREE BOOKLET TODAY

Climax Molybdenum Company
500 Fifth Avenue · New York City 36 · N·Y

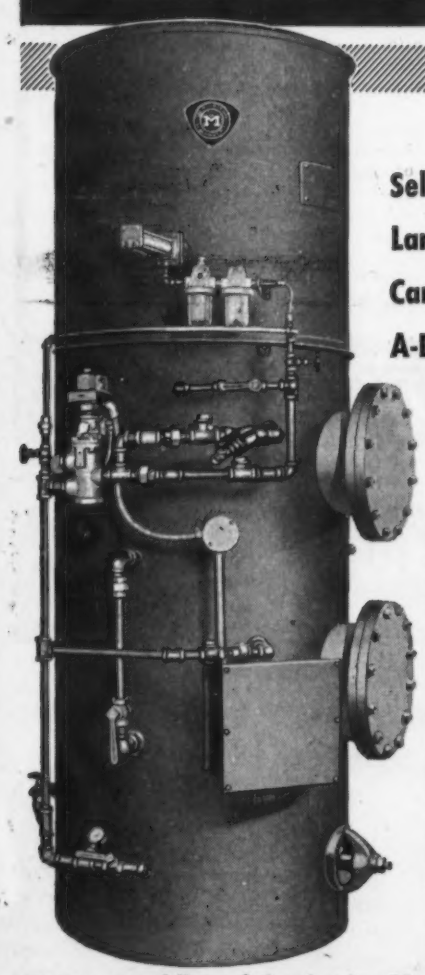
MS4-A

For more details circle NED-2147 on enclosed inquiry slip

NEW! *The Completely Automatic*

MACLEOD "AUTO-BLAST"

ABRASIVE BLAST CLEANING MACHINE



Self-Contained . . . Large Capacity . . . Can Give 24-Hours-A-Day Continuous Blasting If Required

A completely new Macleod engineering development. A double-chamber blast cleaning machine with a continuous blasting cycle — no shutdown time for reloading . . . greatly reduced labor costs. The refilling cycle is entirely automatic and does not depend on outside sources—such as a synchronized timing device, or motor - driven pumps or valves. The automatic cycle unit is built into the machine and is not influenced by the type or rate-of-flow of the abrasive. No interchangeable abrasive controls are required and the number and diameter of nozzles is no problem.

The Macleod "Auto-Blast" machine can be used with rooms, tables, barrels, or special automatic devices.

MACLEOD also manufactures other stationary and portable blast cleaning machines, dust arresters, cement placement equipment, tar kettles, and foundry supplies.

The MACLEOD Company
2242 BOGEN ST., CINCINNATI 22, OHIO, U. S. A.
ESTABLISHED 1897

For more details circle NED-2148 on enclosed inquiry slip

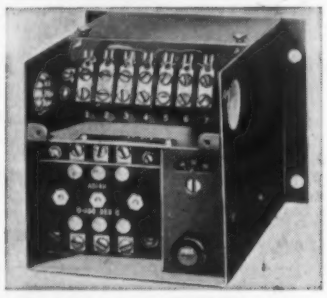
BUCKET ELEVATOR
lifts parts in a metered flow and discharges them gently

Such small parts as nuts, bolts, screws, and lock-washers can be lifted in a metered flow from a hopper at floor level to a point any distance above the floor by the Lift-O-Matic bucket elevator. Buckets are not dumped at the end of their run, but emptied gently by means of a hinged gate at the bottom. Hopper feed is controlled by a Syntron feeder with flow varying from zero to maximum.

The feeder meters the parts into a revolving hopper at about floor level which has holes corresponding with openings in the buckets so that a uniform quantity of parts is deposited in each bucket. Buckets, on roller chains, move up one side of the elevator and down the other. Bottoms are cammed open and closed. Capacity of standard model is over 7500 lb of steel parts per hour. Made by **U. S. Engineering Co.**, 40-22 22nd St., Long Island City 1, N. Y.

For more details circle NED-2149 on enclosed inquiry slip

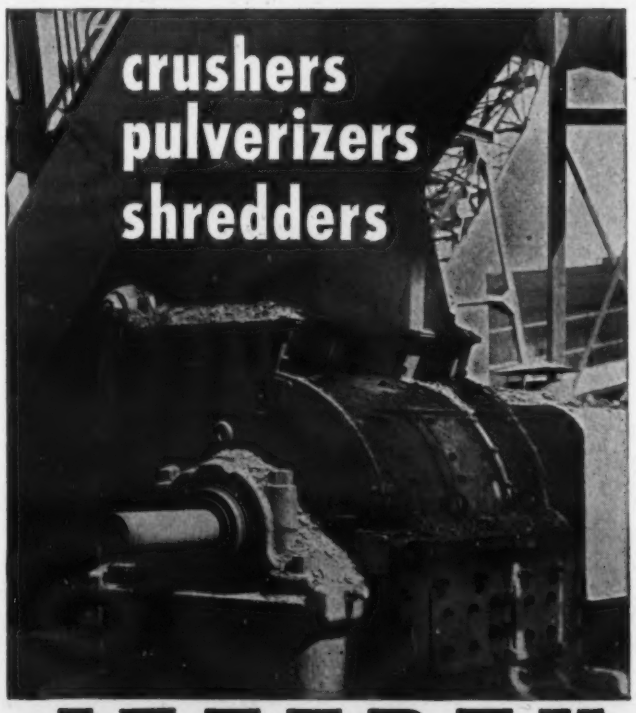
TEMPERATURE TRANSMITTER
consists of resistance thermometer element and thermometer adapter



Designed primarily for use with Autronic control system, type T2T temperature transmitter consists essentially of resistance thermometer element and thermometer adapter unit. It is extremely flexible and can be adapted to many special process, power plant, refinery and other operations. Thermometer element is platinum wire wound on a ceramic core and sealed in Inconel tube. Standard lagging extension and finned thermowell styles are available.

Thermometer adapter unit converts resistance changes in thermometer element to a proportional signal voltage which varies from 0 to 0.5-v 60-cycle ac for the full range of the measuring element. Removable range cards give fourteen 50° spans from −50°C to 325°C, six 100° spans from −50°C to 300°C, three 200° spans from −100°C to 300°C or one 300° span from −50°C to 250°C. Similar range spans are available in Fahrenheit, and special range cards can be provided. Made by **Swartwout Co.**, 18519 Euclid Ave., Cleveland 12, O.

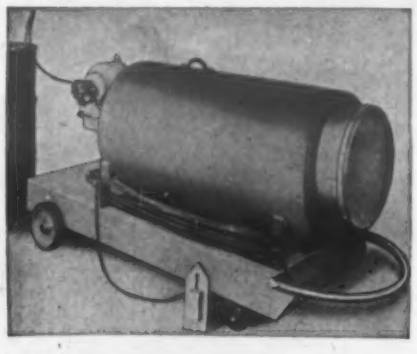
For more details circle NED-2150 on enclosed inquiry slip



JEFFREY

ESTABLISHED 1877
THE JEFFREY MANUFACTURING CO.
952 Fourth Street, Columbus 16, Ohio

For more details circle NED-2151 on enclosed inquiry slip



GET READY for Those Cold-Weather Jobs . . . With the "ECO-TEMP"

Automatic Portable Oil Fired Air Heater

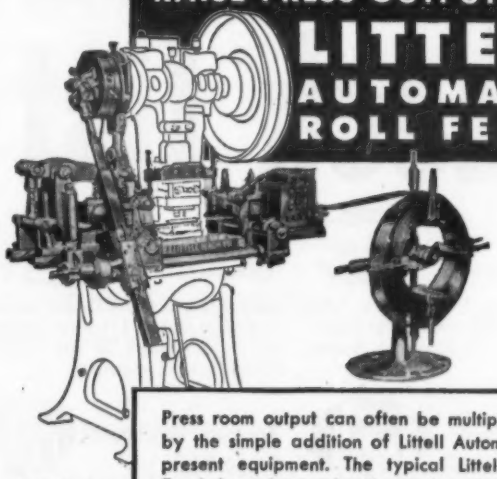
The contractors ECOnomical TEMPorary air heater. Delivers 280,000—370,000 or 650,000 BTU's per hour with No. 2 fuel oil. Connect hose to regular oil drum, anywhere; plug in to electrical outlet; turn switch. Thermostatic control does the rest. All-steel construction, yet easily portable. 70" long, 24" wide, 35" high. Fired and tested before shipping. *Write for Literature, Prices. Smaller Size Available.*

ARTHUR C. BAUMANN
7021 GRAYS AVE. PHILADELPHIA 42, PA.

For more details circle NED-2152 on enclosed inquiry slip

RAISE PRESS OUTPUT WITH

LITTELL AUTOMATIC ROLL FEEDS



Installed on old or new equipment

Press room output can often be multiplied five times by the simple addition of Littell Automatic Feeds to present equipment. The typical Littell Double Roll Feed shown here grips the stock on both sides of the die to assure maximum traction and feeding power. Stock is easier to start and finish in progressive die work. No hand feeding at either end of the stock. Rack and pinion drive provides the smoothness and the gradual acceleration and deceleration of feed rolls for a truly accurate feed. Standard Littell Automatic Feeds serve all types and sizes of presses, handle all standard widths and thicknesses of stock.

Write for catalog

F. J. LITTELL MACHINE CO.

ROLL FEEDS • DIAL FEEDS • STRAIGHTENING MACHINES • REELS • AIR BLAST VALVES
District Offices: Detroit, Cleveland
4169 N. Ravenswood Ave., Chicago 13, Illinois

WHEN YOU BUY FROM LITTELL . . . YOU PURCHASE A PACKAGE OF SATISFACTION

For more details circle NED-2153 on enclosed inquiry slip

Send For Your Free Copy

SLIPPING ACCIDENTS?

Write for Booklet A-4

This Free 8-page Booklet Shows You How To End Them with A.W. ALGRIP

ABRASIVE ROLLED STEEL FLOOR PLATE

- A.W. ALGRIP is the world's *only* Abrasive Rolled Steel Floor Plate.
- Wet or dry, ALGRIP prevents slipping—even on steep inclines!
- Light, tough—thinner sections can be used.
- Easy to install—needs no maintenance.
- Over 1001 plant and product applications—wherever men walk or climb.

THERE'S NEVER A SLIP ON A.W. ALGRIP

A.W. ALGRIP

ABRASIVE ROLLED STEEL FLOOR PLATE
Product of ALAN WOOD STEEL COMPANY
Conshohocken, Pa.
Over 125 Years of Iron and Steel Making Experience

Other Products: PERMACLAD Stainless Clad Steel
A W SUPER-DIAMOND Floor Plate · Plates
Sheets · Strip · (Alloy and Special Grades)

For more details circle NED-2154 on enclosed inquiry slip

SCHRAMM
SMALL INDUSTRIAL COMPRESSORS

Positive controlled force-feed oiling to every wearing surface.

Main Bearings—Tapered roller bearings. Crankshaft supported at both ends.

Larger radiation fins.

SIZES—½ HP to 5 HP. MOUNTINGS—Horizontal or vertical air receivers or on base. DRIVES—Electric motors or gasoline engines.

WRITE FOR CATALOG GC-52.

SCHRAMM, INC.
The Compressor People
WEST CHESTER • PENNSYLVANIA

For more details circle **NED-2155** on enclosed inquiry slip

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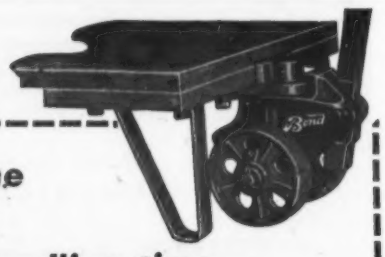
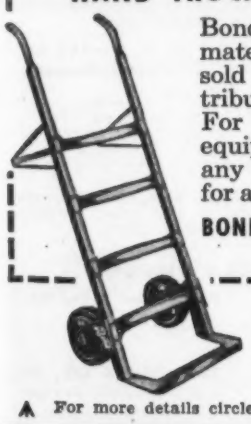
Universal Lift Jack and Platform.



A Bond Line that saves material handling time...

Bond® built-for-the-job

LIFT JACKS • PLATFORMS • DOLLIES
HAND TRUCKS • TRUCK CASTERS



Bond time-saving, profit-building materials handling equipment is sold by leading industrial distributors throughout the country. For help in choosing the right equipment for your job contact any Bond distributor and write for a copy of Bond Catalog K-38.

BOND FOUNDRY & MACHINE CO.
Manheim, Pennsylvania

Hand Truck. General Purpose truck illustrated. Also Keg and Case, Barrel Drain and Beverage trucks.

For more details circle **NED-2156** on enclosed inquiry slip

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DON'T SCRAP IT!

LET "GLOVCO" RECONDITION IT
(LEATHER OR FABRIC)

DUST COLLECTOR BAGS • CONVEYOR BELTING
TARPAULINS • DROP CLOTHS • FILTER PADS

At a mere fraction the cost of replacement, we clean and professionally repair these and many other items, restoring them to new usefulness. Our pick-up and delivery plan in most industrial areas eliminates mechanical difficulties making this reconditioning plan work smoothly and to your complete advantage.

DIRTY WORN WORK GLOVES RECONDITIONED LIKE NEW

BEFORE AFTER

Our work glove reconditioning plan includes: pick-up, cleaning and sterilizing, repairing, reshaping, pairing, packaging and delivery. Users of the service record savings up to 49% in work glove costs. We will be glad to demonstrate this service at no cost to you. Representatives in all industrial areas

U. S. INDUSTRIAL GLOVE CORP.
9352 Roselawn Ave. Detroit 4, Mich.

For more details circle **NED-2157** on enclosed inquiry slip

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LOAD HANDLING GRAPPLES
line includes types to handle pipe, crates, coils, barrels and boxes

Developed to solve company's own coil handling problems, this model 102C grapple is one of a complete line of grapples and is designed to turn coils from horizontal to vertical position or vice versa. Attaching crane hook to one or the other shackle determines final position of coil of stock. Standard size illustrated has 4000-lb capacity, will handle coils up to 23 in. wide and coil thicknesses of 8 to 11 in. Heavier capacities are available on special order.

Also included in line of Shur-Grab grapples are nine different types to handle cases of all shapes, wood and metal barrels, coils and reels, crates, rods, tubes, pipes and other materials. Tong, clamp, hook, expanding and compound lever action grapples are available in sizes and capacities to meet practically any need. Made by **Eastern Brass & Copper Co.**, Shur-Grab Grapples Div., 1125 Lebanon St., Bronx 60, N. Y.

For more details circle **NED-2158** on enclosed inquiry slip

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LOW-LIFT INDUSTRIAL TRUCK
4000-lb capacity rider type truck offered in platform or pallet types

Because both load and operator are carried, Spacemaster model M low-lift platform or pallet trucks speed handling of loads weighing up to 4000 lb. This electric powered machine is designed to operate in minimum of aisle space. For example, the platform type with a 48-in. load operates in 6-ft aisles, while the pallet model with a similar load can be maneuvered in 7-ft aisles.

Load carrying frame is separate and is supported by two stabilizing casters. Drive unit is hinged to the load carrying portion, and because the load on the drive wheel is constant, steering is always easy. Load is distributed broadly over five points of contact with floor to minimize damage to floor. Truck is designed for continuous heavy-duty service in all types of materials handling operations. Made by **Lewis-Shepard Products, Inc.**, Dept. R-1, Watertown 72, Mass.

For more details circle **NED-2159** on enclosed inquiry slip

---

the *New* SAF-I-FLEX
with Grid Vents and Replaceable Lens

FRAME—Crystal Clear VINYL frame permits wide-angle side vision. Velvet Soft—Fits contour of all faces snugly. Inside edge of frame rolled for more comfort and better fit. Generous grid vents for full ventilation.

LENS—Optilite ® Lens meets Federal Spec. for optical qualities and impact resistance—available in Crystal Clear or Green. Lens quickly and easily replaced—locks securely in frame. Extra large lens area—fits over most styles of personal glasses.

WRITE FOR LITERATURE AND PRICES

UNITED STATES SAFETY SERVICE CO.
KANSAS CITY 6, MISSOURI BRANCHES IN PRINCIPAL INDUSTRIAL CITIES
In Canada PARMELEE, LTD. Toronto

For more details circle **NED-2160** on enclosed inquiry slip

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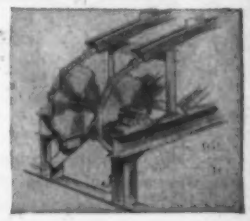
Tailor-Made Conveyor Systems

Increase Your Productivity While Lowering Costs With Webb Conveyors . . . Engineered To Meet Every Conceivable Mechanized Conveying Need.

Chassis Assembly Conveyor with continuous high tee-bars.

Typical of the versatility of Webb Conveying Systems are the chassis assembly conveyors in operation at one of the largest and most mechanized automobile plants in Detroit. For 25 years Webb has materially aided this manufacturer in maintaining production schedules and cost controls with installations such as these chassis assembly conveyors, which permit uninterrupted assembly to the chassis of rear axle, wheels, motor, gas tank and transmission.

Put to better use your Overhead, Floor or Underfloor Space . . . Let Webb Engineers Solve the Challenges Presented by your Most Complicated Materials Handling Problems.



Head End Section of Chassis Assembly Conveyor (notched tee-bar type).

CONVEYOR ENGINEERS AND MANUFACTURERS
JERVIS B. WEBB COMPANY
8921 ALPINE AVE. DETROIT 4, MICH.
OFFICES IN PRINCIPAL CITIES
FACTORIES IN DETROIT . . . LOS ANGELES . . . HAMILTON, ONT.

For more details circle **NED-2161** on enclosed inquiry slip

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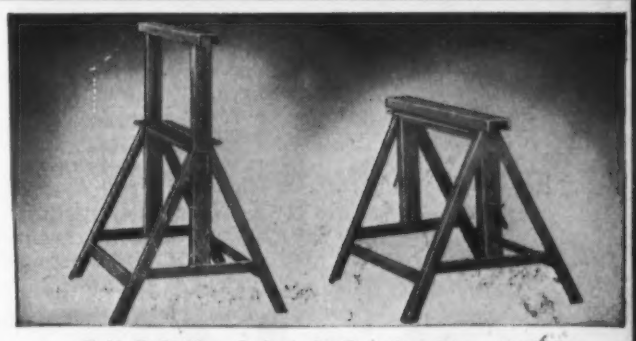

EVERY PLANT CAN USE ADJUSTABLE STEEL HORSES

They are the "work horses" in every plant or shop . . . more than pay for themselves, and are never idle because of the many uses their ready adjustability will easily serve:

SPOT WELDING TABLES	SCAFFOLDING
FABRICATION SUPPORTS	CONVEYOR SUPPORTS
LAYOUT WORK	MAINTENANCE WORK
BENCHES	And many other uses

MODELS FOR HEAVY OR LIGHT WORK

Standard length 36". Low Height 24"; Extended Height 42". Adjustable at 1½" intervals. Held in position by steel lock pins. All units portable. Painted one coat chrome yellow.

Send today for BULLETIN No. 500 covering BRUSCO Boxes and Hoppers.

Brusco HANDLING EQUIPMENT
BRUMMELER STEEL PRODUCTS CORPORATION
1411 Ionia Ave., S. W. Grand Rapids, Michigan

For more details circle **NED-2162** on enclosed inquiry slip

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TEMPILSTIKS°

the amazing Crayons that tell temperatures

in
WELDING
FLAME-CUTTING
TEMPERING
FORGING
CASTING
MOLDING
DRAWING
STRAIGHTENING
HEAT-TREATING
IN GENERAL

$2 each

gives up to 2000 readings

it's this simple:
- Select the Tempilstik° for your working temperature.
- Mark your workpiece with it.
- The Tempilstik° will leave a liquid mark as soon as its specified temperature is reached.

Available in these temperatures (°F)

113	213	313	450	850	1250	1650
125	225	325	500	900	1300	1700
138	238	338	550	950	1350	1750
150	250	350	600	1000	1400	1800
163	263	363	650	1050	1450	1850
175	275	375	700	1100	1500	1900
188	288	388	750	1150	1550	1950
200	300	400	800	1200	1600	2000

Also available in pellet and liquid form.

TEMPIL CORPORATION
11 West 25th St., New York 10, N. Y.

FREE—Tempil° "Basic Guide to Ferrous Metallurgy" —16¼" by 21" plastic-laminated wall chart in color. Send for sample pellets, stating temperature of interest to you.

NAME _____
COMPANY _____
ADDRESS _____

For more details circle **NED-2163** on enclosed inquiry slip

Wear a DUPOR No. 10 Chemical Cartridge Respirator

Code "A" Cartridges (Soda Lime)—White Plastic for light concentrations of inorganic acid gases.

Code "B" Cartridges (Activated Charcoal)—Black plastic for light concentrations of organic chemical vapors.

Code "AB" Cartridges (Soda Lime and Activated Charcoal)—Yellow plastic for light concentrations of combined inorganic and organic gases.

Unit has DUPOR "controlled-breathing" valves. Double filter apertures hold 50cc. capacity chemical cartridges. Soft rubber face mask gives gas-tight fit on any shape face, as well as panorama view with no blind spots. Chemical filters are packed in colored plastic cartridges that will not corrode like metal ones or crush like paper types. Unit is shipped with code "B" cartridge unless otherwise specified.

Sample sent

$5.00 pp

Extra Cartridges 70c a set

H. S. COVER, South Bend, Ind.

For more details circle NED-2164 on enclosed inquiry slip

MIRACLE REINFORCEMENT BASE ADDS YEARS TO FLOOR LIFE!

- MINIMUM UPKEEP
- RUGGED
- SAFE

Floorsteel Rolls Out Like A Rug!

FLOORS STILL IN PERFECT CONDITION AFTER MORE THAN 25 YEARS!...

Workmen installing Klemp Floorsteel Flexible Floor Armor for reinforcement of concrete surface.

KLEMP HEXTEEL® or FLOORSTEEL®

REINFORCED (AND INSTALLED) INDUSTRIAL FLOORS

Klemp Hexteel or Floorsteel solve once and for all the problem of solidity, smoothness, and upkeep of any floor daily subjected to the hardest, most wearing assaults of trucks bearing materials of great weight. Fabricated of heavy-duty steel grid flooring material, they are scientifically designed to be filled with concrete or mastic on old or new floors (either wood or concrete). When filled, they make a solid one-piece, rigid, smooth, and seamless mat over the entire floor area, so that the tread of the wheel is always on steel.

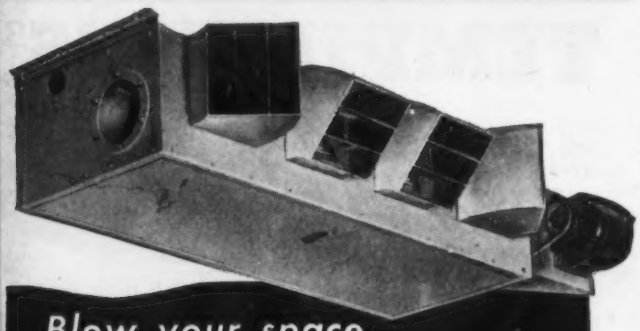
IMPORTANT: Before installing—Insure longer floor life and maintenance savings by consulting Klemp engineers who will gladly help you (without obligation) to make a thorough study of your flooring problems.

Send for your free copy of the informative booklet: "Instructions for laying Klemp Hexteel and Floorsteel."

KLEMP METAL GRATING CORP.
Executive Offices: 1375 North Branch Street, Chicago 22, Illinois

We Tread the World with Safety

For more details circle NED-2165 on enclosed inquiry slip



Blow your space heating problems away

Dunham Blower Unit Heaters are designed to solve nearly every large area heating and ventilating problem.

Wide Choice of Types. Dunham Blower Heaters offer five different types of heater mountings—floor, wall, ceiling, inverted or platform. Each comes in a range of sizes and capacities. Each can handle steam or hot water. All can be equipped with nozzles, dampers, filter sections and duct connections.

Easy Access to Parts. All working parts removable. For example, heating element and complete fan and shaft assembly can be withdrawn through either end of heater casing. *For full details* WRITE FOR BULLETIN 2301- 14.

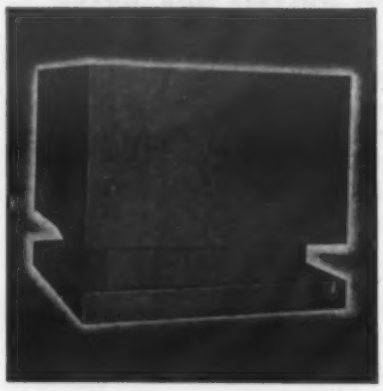
DUNHAM

C. A. DUNHAM CO.
400 West Madison Street
Chicago 6, Illinois

HEATING SYSTEMS AND EQUIPMENT

For more details circle NED-2166 on enclosed inquiry slip

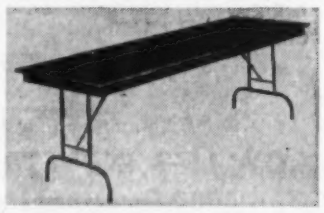
ROOF VENTILATOR features louver-type peak roof



Effective in clearing fumes and heat from above furnaces, foundry pouring floors, vats and other industrial equipment, this Air-jet automatic fan-powered roof ventilator has standard fan enclosed in box-shaped galvanized copper-bearing steel housing. Two hinged aluminum panels, which are actually louvers, form weather-tight peak roof. They open automatically when fan is started and close when it stops. When open, air-stream prevents entry of rain or snow. Made by **Hartzell Propeller Fan Co.**, Dept. G, 1025 Roosevelt Ave., Piqua, O.

For more details circle NED-2167 on enclosed inquiry slip

FOLDING TABLE has durable composition top



Capable of being folded to compact easily-stored size, this Mayline folding table has composition top attached to 7-ply ¾-in. plywood frame encased in hardwood frame. Tubular steel legs fold as unit and nest into underside of table. Support has spring type self-locking lever-release brace lock. Table height is 30½ in. and available sizes are 30 x 72 in. and 30 x 36 in. Made by **Engineering Mfg. Co.**, 619D N. Commerce St., Sheboygan, Wis.

For more details circle NED-2168 on enclosed inquiry slip

ELECTRIC COUNTERS with built-in rectification

Increase in the life of Wizard electric counters on alternating current service is brought about by built-in rectification unit which gives the counters an average life of 350 million counts. Dimensions of the counter are not changed. Counters so equipped are available for 115 and 230 v ac; in standard, panel-mount and dustproof types; four and six-digit models; knob or key reset. Made by **Production Instrument Co.**, 700-12 W. Jackson Blvd., Chicago 6, Ill.

For more details circle NED-2169 on enclosed inquiry slip

KENDALL MILLS... solves tough handling problem

Buschman CABLE CONVEYORS

SPEED COTTON MILL'S DOUBLED CAPACITY

Three Buschman "Universal" Cable Conveyors carry in-process cotton from one department to another in Oakland Plant of Kendall Mills, supplier to Bauer and Black, maker of famous Curity surgical gauze dressings.

Buschman Cable Conveyors, over 2400 ft. in length, smoothly handle high production of this enlarged modern mill. Standard stock units, ease of installation, lower initial cost, lower maintenance cost, small power requirements, time saving and floor-space saving features are reasons why "Universal" is in greater demand than ever, for handling light and medium weight loads.

Write for Bulletin 41.

The E. W. Buschman Co., Inc.
4429 Clifton Avenue
Cincinnati 32, Ohio

PRODUCE MORE...FOR LESS
Buschman Conveyors

For more details circle NED-2170 on enclosed inquiry slip

Saves time and money inspecting small dimensions . . .

Nothing else like it! A precision optical measuring instrument for fast, accurate inspection of small dimensions. Save time and money measuring wear on cutting tools, checking forms and dimensions of punches, dies and gauges—as well as radii, angles, chamfers, threads and small holes on production parts.

PRICE $36.00
ORDER TODAY

A product of BELL & HOWELL CO. Distributed by

See Your National Tool Co. Representative or Local Jobber

NATIONAL TOOL CO.
11210 Madison Avenue Cleveland 2, Ohio

Write for FREE descriptive folder

For more details circle NED-2171 on enclosed inquiry slip

GOT DC PROBLEMS?

Solve them with NOBATRONS*

Model E-6-5

Sorensen NOBATRONS (low-voltage, high-current DC sources) are economical, accurate, durable, easy to maintain. A wide variety of standard models is available to meet practically all requirements. Write for information.

COMMON NOBATRON SPECIFICATIONS

Input voltage range	95-130 VAC, single ϕ, 50-60~ High-current units 208/115, 3ϕ, 4-wire, wye.
Output range	6, 12, 28, 125, 200 VDC @ 5—350 amps. Adjustable ± 10% with rated accuracy,—25% with lesser accuracy.
Regulation accuracy	± 0.2% from 1/10 to full load.
Ripple voltage	1% RMS. Time constant 0.2 seconds.

Also available — Nobatron-Rangers which have adjustable outputs of 3-30VDC @ 3-30 amps, 3-135VDC @ 1-10 amps, 100-300VDC @ 1-10 amps. Other specifications similar to above.

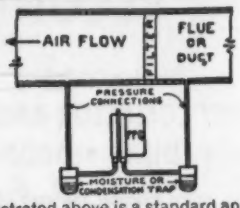
* Reg. U. S. Pat. Off. by Sorensen & Co., Inc.

SORENSEN

SORENSEN & CO., INC.
375 Fairfield Avenue
Stamford, Conn.

For more details circle NED-2172 on enclosed inquiry slip

CONTROL FROM MINUTE CHANGES IN THE RELATIONSHIP OF TWO PRESSURES



Illustrated above is a standard application whereby the Type PPQ functions to open (or close) an electrical circuit from a variation in pressure differential due to a clogging filter.

Mercoid Type PPQ Diaphragm Differential Pressure Controls operate from minute changes (.03" water) in the difference between two pressures.

Ranges to cover most applications (inches of water) 6" vacuum to 6" pressure, and 30" vacuum to 30" pressure. Available for various circuit arrangements.

Electrical Capacity—0.3Amp. at 115V., A.C. or 0.15 Amp., at 230V., D.C. Can be furnished in explosion-proof or weather-proof cases.

WRITE FOR BULLETIN CA-3P

THE MERCOID CORPORATION
4201 W. BELMONT AVENUE, CHICAGO 41, ILLINOIS
New York: 205 East 42nd St. Philadelphia: 3137 N. Broad St.

For more details circle NED-2173 on enclosed inquiry slip

FILL CARS *Faster* *with an* S-A BOX CAR LOADER

One man, with an S-A Box Car Loader, can make quick work of loading and trimming a box car. The loader operates without attention after it is placed in the car, and flow of material is started. This handy machine automatically loads and trims in a fraction of the time required by hand methods. Exposure of operator to dust is reduced to the minimum. Save time and manpower with this standard S-A portable loader . . . It handles loose granular material up to 2-inch lump size.

Write for Bulletin No. 948 and full details.

STEPHEN S-ADAMSON MFG. CO.

TELLEVEL—Bin Level Controls · Car Loaders · Variable Speed Reducers · Car Pullers · SealMaster Ball Bearings · Winches · Saco Speed Reducers

12 RIDGEWAY AVE., AURORA, ILLINOIS

For more details circle NED-2174 on enclosed inquiry slip

RE-ORDERS

From Prominent Users of More Than 10 Years Prove the DEPENDABILITY of JOHNSON METAL CUT-OFF BAND SAWS

They Buy

AGAIN and AGAIN!

There is nothing more convincing of the excellence of a product than constant reorders . . . And that is what Johnson enjoys. . . . Users over a period of years prefer to re-order Johnson Band Saws because they're satisfied; they have confidence in Johnson Saws. They know from past experience that they are getting the best value for their money, the best performance. You, too, should investigate this leading line. Learn about Johnson's high machining standards, close tolerances, speed, accuracy and adaptability. Write for catalog today.

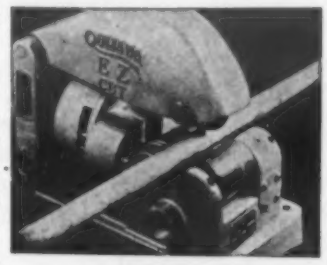
There is a Dealer Near You

Model J, pictured, 10" x 18" Capacity, available as a wet or dry cutting machine. Also Junior Model B, (with or without casters) 5" x 10" Capacity.

JOHNSON MANUFACTURING CORP.
ALBION, MICHIGAN

For more details circle NED-2175 on enclosed inquiry slip

PIPE—TUBE—CONDUIT CUTTER cuts 2-in. pipe in 10 seconds



Power driven rollers of the E-Z portable pipe, tube and conduit cutter assure fast, clean cuts. Rollers revolve the pipe for continuous cutting without slippage. The high speed steel cutter wheel does not wear in one spot. Cutter handles pipe from 3/8 to 2 in. and tubing from 5/8 to 3 in. Adjustable roller type pipe supports allow any length and size of pipe to be cut without changing supports. Controlled by foot switch, the cutter has a 10-second cutting speed for 2-in. pipe and 6-second speed for 3-in. tubing. Weight is 100 lb. Made by **Gaines-Collins**, Quijada Tool Div., Dept. 75-A, 5474 Alhambra Ave., Los Angeles 32, Calif.

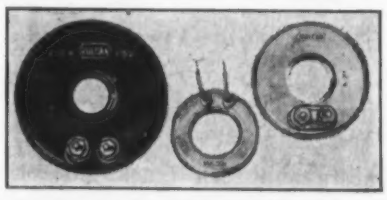
For more details circle NED-2176 on enclosed inquiry slip

OSCILLOGRAPH TUBE is 7-in. industrial type

Designed to give sharp focus and high brightness of trace on general oscillographic applications, model 7VP1 7-in. cathode-ray tube uses electrostatic focus and electrostatic deflection. It has small brilliant spot and high deflection sensitivity for its relatively short length. It can be used in all oscillographic equipment having a high voltage supply of up to 4000 v. Made by **Radio Corp. of America**, Tube Dept., Harrison, N. J.

For more details circle NED-2177 on enclosed inquiry slip

ELECTRIC RING HEATERS for space and contact assemblies



Concentrated heat and ease of installation are features of line of electric ring heaters, offered in six standard sizes from 2 in. OD, 1/4-in. thick to 6 in. OD, 5/16-in. thick. They can be used for both space and contact units for assembly into hot plates, pots, defrosters, molds, dies, water heaters and distillation equipment. Two types are available for 115 or 230 v, or special voltages: one, in rust-resisting steel sheath, rates 75 to 800 w, for temperatures up to 750° F; other in stainless steel sheath, rated 100 to 1000 w, is for temperatures up to 1200° F. Flexible lead wires and threaded stud terminal are offered and, except for the smallest size, units can have three-heat construction. Made by **Vulcan Electric Co.**, Dept. P, 86-90 Holten St., Danvers, Mass.

For more details circle NED-2178 on enclosed inquiry slip

Want to know what it costs

TO KEEP YOUR GRANULARS FROM *Sticking* IN BINS?

We're referring to the use of a Cleveland Air Vibrator as a low-cost, quick action way to free up bins, hoppers, chutes, screens, storage tanks, etc., containing granulars inclined to arch, bridge or stick.

An average installation on a standard steel bin of 10-tons capacity in the chemical processing industry is only $101.55!

An average installation of a Cleveland Air Vibrator on a standard steel bin of 1500# capacity in the food processing industry is only $41.40.

On a 3000# bin in the foundry industry, it costs only $52.05.

On a mine car handling ore, a Cleveland Air Vibrator costs only $153.05.

On a way batch hopper of 2 cubic-yard capacity, it costs only $41.40 to keep concrete materials moving.

These are merely typical installations of Cleveland vibrators. We make a type and size to meet any requirement. Our vibrators are moving everything from walnuts to ice cubes, concrete to bottle caps.

Standard metallic impact and air-cushioned quiet types. What's Your Problem? *Catalog No. 105 on request.*

BIN Stuck Lately?

Move, Settle or Package Quickly with *Cleveland* Air Vibrators

THE CLEVELAND VIBRATOR CO.
2744 Clinton Avenue • Cleveland 13, Ohio

For more details circle NED-2179 on enclosed inquiry slip

At Cleveland Builders Supply . . .

. . . with Robbins and Myers "Freeways" handling. At the "Dox Plank" section, materials handling traffic has been completely separated from ground traffic with this result . . . *no traffic jams.* Materials are carried over rather than around obstacles. Utilization of floor space has gone up . . . materials handling time and cost has gone down.

Two completely power driven, crane mounted, R&M two-ton capacity twin hoists handle 7,200 lb. "Dox Plank" assemblies throughout the production and storage areas. A separate one-ton capacity R&M "J" hoist similarly mounted serves as a feeder system moving single 1,800 lb. plank assemblies into the final production areas.

R&M representatives know the advantages, the mechanics of applying "freeways" handling systems to traffic problems in your plant. We suggest that you start taking advantage of this wealth of experience now by writing for Bulletin No. N112D.

TAKE IT UP WITH ROBBINS & MYERS INC.

HOIST AND CRANE DIVISION, SPRINGFIELD 99, OHIO

For more details circle NED-2180 on enclosed inquiry slip

One Man DOES IT!

HANDLE DRUMS AND BARRELS THIS FAST AND EASY ONE-MAN WAY AND SAVE LABOR.

No Helpers Needed

SABIN BARRELTRUCK

By running truck up to container, hooking on at top and pulling back on handle, ONE MAN easily picks up drums and barrels weighing up to 800 pounds — without helpers. *Third Wheel Feature* assures better balance and added safety in moving loads.

WRITE FOR BULLETIN NO. 48-A

THE SABIN MACHINE CO.
6536 Carnegie Ave.
CLEVELAND 3 OHIO

ALSO TOTE PAN, BOX, CARBOY, KEG TRUCKS!

For more details circle NED-2181 on enclosed inquiry slip

AN INDISPENSABLE FIRST-AID INSTRUMENT

G-S EYE SWEEP

Double Purpose MAGNET AND LOOP

For removing metallic particles, dirt, chips, any foreign matter from the eye. **$2.50**

Magnetic tip easily picks up the smallest piece of iron or steel. Flexible loop is very convenient for removing cinders, dirt and non-magnetic particles.

Sterilization will not affect magnetic properties or loop. A hard rubber carrying case is provided with each G-S Eye Sweep.

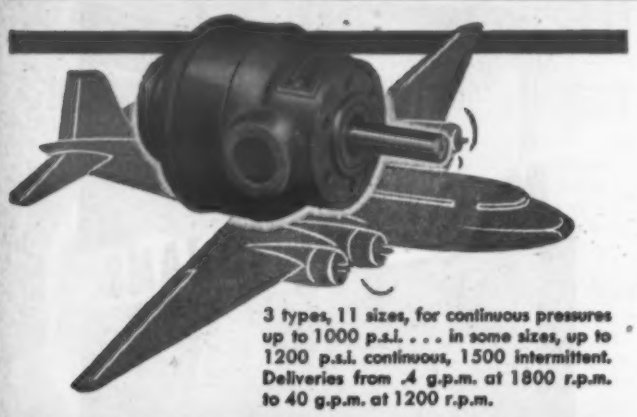
ORDER TODAY DIRECT OR SEND FOR COMPLETE DATA

A DEPENDABLE GUIDE TO SAFETY
GENERAL SCIENTIFIC EQUIPMENT COMPANY
TESTED INDUSTRIAL SAFETY PRODUCTS

2701 W. Huntington St., Philadelphia 32, Pa.

RESPIRATORS • PUMPS • GOGGLES • SHIELDS • GLOVES • APRONS • HELMETS

For more details circle NED-2182 on enclosed inquiry slip



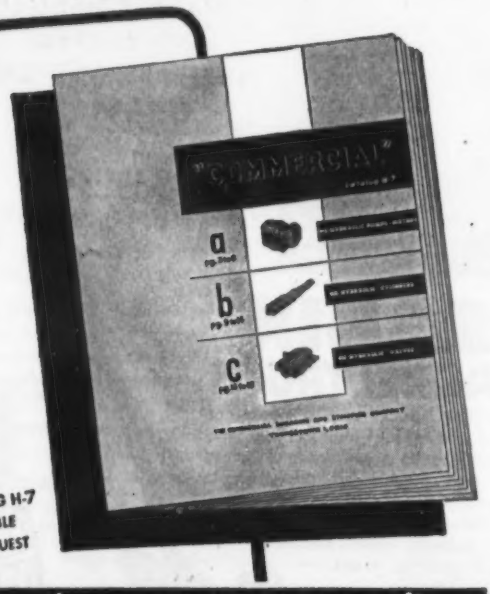
3 types, 11 sizes, for continuous pressures up to 1000 p.s.i. . . . in some sizes, up to 1200 p.s.i. continuous, 1500 intermittent. Deliveries from .4 g.p.m. at 1800 r.p.m. to 40 g.p.m. at 1200 r.p.m.

you get the **finest** the **fastest** when you specify **GEROTOR** HYDRAULIC PUMPS

Gerotor May Corp. Baltimore 3, Md.

▲ For more details circle NED-2183 on enclosed inquiry slip ▲

operating pressures recommended up to 1500 p.s.i.



CATALOG H-7 AVAILABLE ON REQUEST

"COMMERCIAL"
THE COMMERCIAL SHEARING AND STAMPING COMPANY
1775 LOGAN AVE. YOUNGSTOWN 1, OHIO

▲ For more details circle NED-2184 on enclosed inquiry slip ▲

Let's all VOTE

REVOLVATOR CO.

REVOLVATOR CO.
8732 Tonnele Ave., North Bergen, N. J.
Gentlemen:
We want to know, without obligation, all about Revolvator Go-Getter Pallet Type Liftrucks.
Name.....
Position.....
Company.....
Address.....

▲ For more details circle NED-2185 on enclosed inquiry slip ▲

FLASH POINT TESTERS are redesigned for portability and meet ASTM specifications

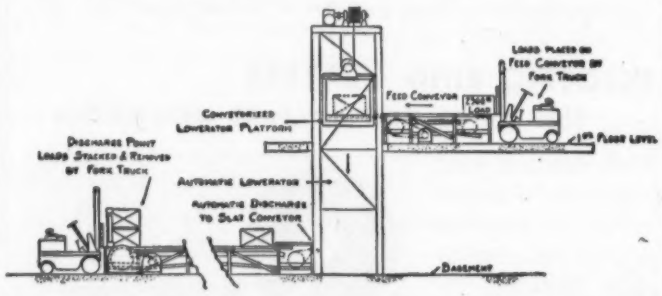
One gas and two electric models of line of TAG Cleveland open cup flash and fire point testers have been completely redesigned as one-unit assemblies for greater portability. Testers are used routinely in the control of lubricating and heavy oils and meet ASTM specifications for determining flash and fire points as given in designation D92.

On gas models, the rigid torch assembly with its own pilot light is mounted in convenient position on the heater. A small grid in the heating burner prevents flame backfire at slow ASTM heating rates. Electric models are heated with resistance type heaters controlled with variable auto transformers. Electrical models A and B use 115-v, 50-60-cycle ac and 230-v, 50-60 cycle ac, respectively. Gas models use either artificial or natural gas. Made by **Fisher Scientific Co.**, 715 Forbes St., Pittsburgh 19, Pa.

▲ For more details circle NED-2186 on enclosed inquiry slip ▲

LOWERING CONVEYOR for between-floors transportation of materials in either direction

Applicable where fairly large quantities of materials must be transported between floors frequently, this automatic lowering conveyor system releases ele-



vators and fork trucks for other work. The system is composed of lowering device, feeder conveyor and take-off conveyor. All are automatically interlocked and controlled by electric eyes and limit switches.

When the feeder conveyor receives a load it automatically delivers it to the lowering device which in turn descends and delivers the load to the take-off conveyor from which it is removed. Units are built to fit given space requirements and to handle specific loads. Operations can be in either or both directions. Illustrated installation handles bundles of tinplate and eliminates a 140-ft haul by industrial truck formerly required. Made by **Gifford-Wood Co.**, 23 Hill St., Hudson, N. Y.

▲ For more details circle NED-2187 on enclosed inquiry slip ▲

*Well-Cast

COMMERCIAL LIGHTWEIGHT CASTINGS

Your commercial requirements for lightweight castings in aluminum or magnesium may be tough, but we'd welcome an opportunity to look them over.

*Well-Cast

MILITARY LIGHTWEIGHT CASTINGS

Aircraft wheels, strut parts, engine parts and miscellaneous components are being made every day at our plants, in aluminum and magnesium.
Sand, semi-permanent and permanent mold form.

Well-Made Wood and Metal Patterns.
Well-Cast Ampco Bronze Castings.

*Copyrighted Trade Name.

If you would like to receive the Wellman Magazine each month without charge, drop us a note on your business letterhead.

THE WELLMAN BRONZE & ALUMINUM CO.
DEPT. 15, 12800 SHAKER BLVD., CLEVELAND 20, OHIO

▲ For more details circle NED-2188 on enclosed inquiry slip ▲

HOMER PERMANENT non-electric MAGNETIC TRAPS CUT PRODUCTION COSTS BY ELIMINATING "DOWN-TIME" DUE TO TRAMP METAL DAMAGE

Pat. No. 2,464,628

Designed for Sanitary or Industrial applications, HOMER Permanent Magnetic Traps, pay for themselves in a very short time, by reducing expensive pipe and processing machinery repairs and down-time, resulting from tramp metal damage.

HOMER Traps are available in sizes to accommodate lines to 4", in standard and heavy-duty models. Write for bulletin MT-103.

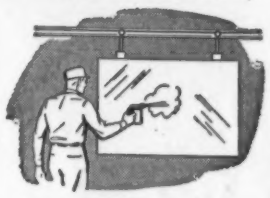
Homer The HOMER MANUFACTURING CO., Inc.
Dept. I-25, LIMA, OHIO

Producers of Magnetic Separator Equipment Since 1923

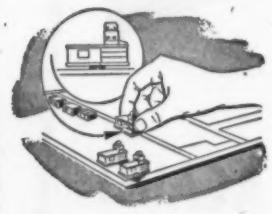
▲ For more details circle NED-2189 on enclosed inquiry slip ▲

NOW, SEE NEW WAYS CARBOLOY MAGNETS SAVE TIME, MONEY IN SHOPS

MAGNET USES



Hold steel plates to conveyors for painting.



Hold models in place on plant layouts.

Hold work for drill press or guiding operations.

Recover tools from dip and coolant tanks.

Shop owners everywhere are now using Carboloy Permanent Magnets to make 1001 money-saving devices around their plants.

As powerful holding, lifting and separating devices, the magnets are being applied to eliminate clamps, jigs, vises, fixtures and other assemblies; to speed setups, production; to retrieve tools from tanks; do any number of jobs better, cheaper, faster than devices formerly used.

POWERFUL

Small Carboloy Permanent Magnets can hold tremendous weights—furnish tremendous pull. Cost nothing to operate.

They provide a permanent source of magnetic energy, too! Give off uniform magnetic energy without wires or operating parts, remain virtually unaffected by heat, moisture or vibration.

You can get low-cost Carboloy Permanent Magnets *now* in many sizes and shapes. Put them to work for you *plant-wide*. Contact a Carboloy Field Engineer in your area, or write for services below.

Check these three new services!

1. "Magnet Ideas for Industrial Plants"—New, *free* kit contains specific data on how to apply permanent magnets to countless shop operations. New data sent free as issued.
2. Shop Package "No. 1"—Contains 48 Carboloy Permanent Magnets: 8 styles—3 pairs each. Magnetic pull up to 2 lbs. per magnet. Price, $10.00. Get yours now!
3. Shop Package "No. 2"—Contains 18 magnets: 4 styles—2 pairs each, and 1 style, 1 pair. Magnetic pull from 3 lbs. to 12 lbs. per magnet. Price $15.00. Order today!

"Carboloy" is the trademark for the products of Carboloy Department of General Electric Company

CARBOLOY PERMANENT MAGNETS
DEPARTMENT OF GENERAL ELECTRIC COMPANY
11189 East 8 Mile Road, Detroit 32, Michigan

Plants at Detroit, Michigan; Edmore, Michigan; and Schenectady, New York

▲ For more details circle NED-2190 on enclosed inquiry slip ▲

DAV-SON CORK-BACKED BULLETIN BOARDS

DAV-SON indoor and outdoor style Bulletin Boards provide attractive displays for up-to-the-minute announcements and posters. Your choice of hardwood or metal frames, with or without locking glass doors, illuminated or non-illuminated.

"THE SAFETY DIRECTOR"

Flashing display is a constant warning to employees to avoid accidents. Changeable letters permit timely safety messages to be set up as often as required. Definite improvement in safety records has been noted in plants using "The Safety Director."

Write for complete information regarding DAV-SON — Cork Bulletin Boards and Directories and the famous "Safety Director."

Dept. NE.

DAV-SON

Ask for Bulletin "A"

A. C. DAVENPORT & SON, INC.
ESTABLISHED 1932
311 N. DESPLAINES ST., CHICAGO 6, ILL.

For more details circle NED-2191 on enclosed inquiry slip

CUT SPRAYING COSTS with CO_2 POWERED GUN

NO HOSES • NO COMPRESSOR •
NO ELECTRICAL OUTLETS •
NOTHING EXTRA TO BUY!

BECKER
PRESSURE-TYPE
SPRAY GUN
USED EXTENSIVELY IN FACTORIES, HOMES, FARMS, INSTITUTIONS

For:
- Paints
- Oils
- Varnishes
- Enamels
- Fire-Proofing
- Decorating

Handy for hundreds of industrial uses where expensive, heavy, cumbersome compressor type spraying is unnecessary. Becker Spray Gun is ruggedly built; heavy gauge (21 liquid oz.) steel container, cast aluminum head, brass and stainless inserts. Powerful CO_2 cartridges spray up to one container-full. See your Distributor or order direct, postpaid. Extra CO_2 cartridges at your dealer's or 10 for $1 postpaid.

SULLIVAN-BECKER CO., DEPT. 172-L, Kenosha, Wis.

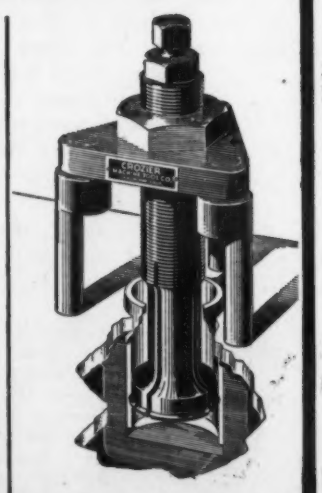
For more details circle NED-2192 on enclosed inquiry slip

NEW EXTRACTOR

removes bushings from blind holes ...cuts time 75 per cent

The entirely new method of extracting bushings, bearings, sleeves, liners, etc. Eliminates necessity for machining, minimizes the hazard of injury to casings or excessive dismantling of equipment, handles holes from ½ to 2"—over 5 tons have been extracted with unit. Eliminates as much as 75 per cent of labor and time, slashes inventory.

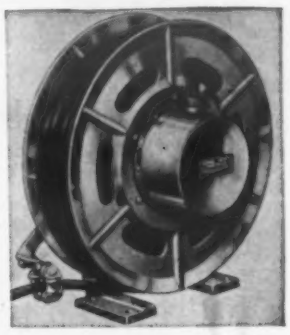
For complete information write Department NED-11.



CROZIER Machine Tool Co.
684 NO. PRAIRIE AVENUE, HAWTHORNE, CALIFORNIA

For more details circle NED-2193 on enclosed inquiry slip

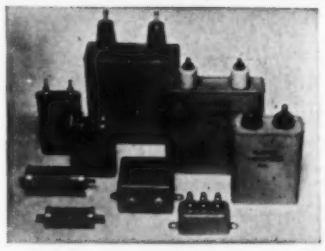
RETRACTABLE ELECTRIC REEL holds up to 150 ft of cable



Usable with sound, communication or power cables, Spring-O-Matic Powereels are available in models to handle up to 150 ft of up to No. 4 multiple-conductor rubber cables. This improved retractable cable reel is constructed principally of aluminum for ease of handling. Ratchet operates in any of four positions, and reel can be mounted on walls, floor or ceiling. Ball bearings are used throughout, and gasket-sealed housing protects the collector ring from dust and moisture. Made by **Industrial Electrical Works,** Dept. 112a, 1505 Chicago St., Omaha 2, Nebr.

For more details circle NED-2194 on enclosed inquiry slip

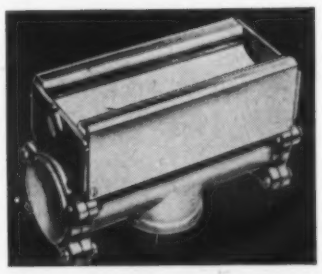
ELECTRONIC PRODUCTS capacitors, power supplies, networks



Plastic film dielectric capacitors, high voltage-low current power supplies and pulse forming networks are available in various ratings. Solid film capacitors accentuate electrical characteristics and increase circuit efficiency. Power supplies for 400-cycle and other primary sources will cover ranges of 2000 to 50,000 v and 1 to 5 milliamperes. Made by **Plastic Capacitors, Inc.,** 2513 W. Moffat St., Chicago 47, Ill.

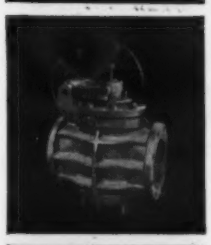
For more details circle NED-2195 on enclosed inquiry slip

GAS BURNERS develop convected and radiant heat



Custom-assembled from standard 9 to 12-in. sections, D & H generators develop intense radiant and convected heat from properly proportioned gaseous fuels. Fuels are impinged on ceramic refractories. Scouring action of gas-air mixture, when ignited, affords complete combustion and brings ceramic surface to incandescent heat. This develops penetrating infrared. Using either center or end feed, generators can be ignited manually or remotely by gas or electric ignition. They can be operated automatically by using safety and temperature control equipment. Made by **Drying & Heating Equipment Co.,** 51-A Blake Ave., Brooklyn 12, N. Y.

For more details circle NED-2196 on enclosed inquiry slip



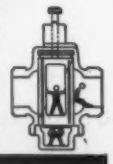
THESE VALVES... HAVE CURED A LOT OF MAINTENANCE HEADACHES because they AUTOMATICALLY ADJUST FOR WEAR

Wear, that in most valves would cause leakage and necessitate complete valve renewals, simply doesn't faze a HOMESTEAD-REISER. Its two-piece, wedge-acting plug constantly and automatically adjusts itself to make up for wear as wear occurs. The valve acts on its own. It is SELF-SEALD! Result: Extra long, leakless service life... more operations between lubrications... less maintenance... lower plant operating costs. Available in semi-steel or cast steel; 100% port area or Venturi type; sizes ½" to 14" for steam working pressures to 150 lbs.; or oil... water... gas to 200 lbs.

Complete data and prices sent on request. Write today for VALVE REFERENCE BOOK No. 39. No obligation.

HOMESTEAD
VALVE MANUFACTURING COMPANY
"Serving Since 1892"
P. O. Box 84 Coraopolis, Pa.

HOMESTEAD-REISERS SEAL THEMSELVES The wedge-action of the two-piece plug under line pressure, presses the plug outward against the body, keeping plug and body surfaces in contact at all times. This automatic adjustment for wear assures extra long life and maximum leakless service.



HOMESTEAD-REISER
Self-Seald... Lubricated
PLUG VALVES

For more details circle NED-2197 on enclosed inquiry slip

with **AURAND CLEANING TOOLS**

Clean off accumulations of scale, paint, rust or any foreign matter from any hard surface with Aurand Cleaning Tools. Toothed cutting wheels, loose pinioned on rotating head chip away accumulations at high speed. Positive depth shoe prevents cutting into permanent surface and assures uniform cleaning of entire area.

Two sizes in electric or pneumatic models.

For full details, write Dept. 14

AURAND MFG. & EQUIP. CO.
2643 Colerain Avenue • CINCINNATI, OHIO

For more details circle NED-2198 on enclosed inquiry slip

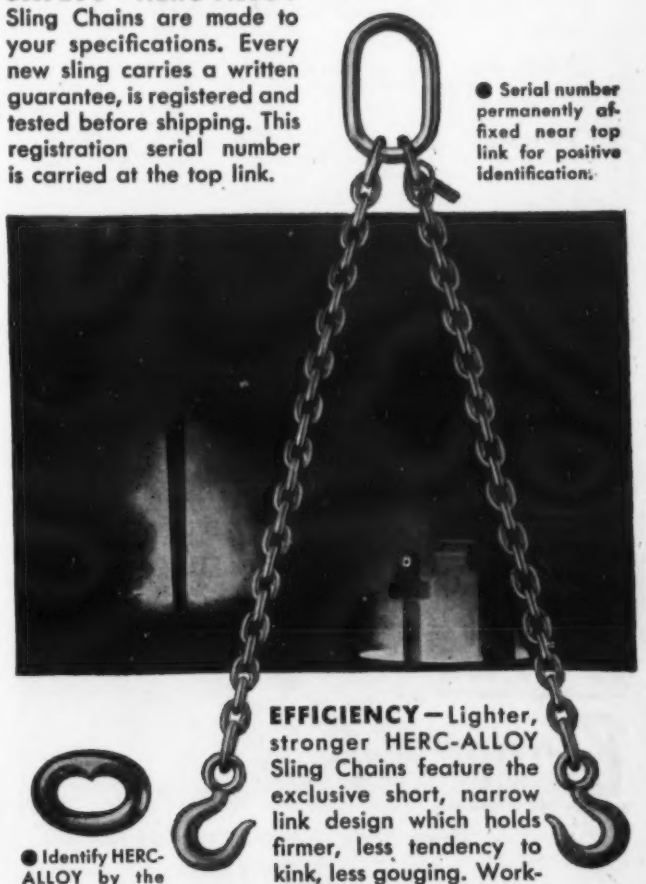
NONE BETTER... America's First and Safest

HERC-ALLOY SLING CHAINS

STRENGTH—Size for size, no other sling chain offers a greater tensile strength. HERC-ALLOY will not crystallize—never requires annealing.

SAFETY—HERC-ALLOY Sling Chains are made to your specifications. Every new sling carries a written guarantee, is registered and tested before shipping. This registration serial number is carried at the top link.

● Serial number permanently affixed near top link for positive identification.



● Identify HERC-ALLOY by the patented Inswell side weld with the extra swell of metal on the inside of the link.

EFFICIENCY—Lighter, stronger HERC-ALLOY Sling Chains feature the exclusive short, narrow link design which holds firmer, less tendency to kink, less gouging. Workmen handle HERC-ALLOY with less effort.

PREFERENCE—Men who buy and use sling chains are influenced only by facts learned through experience. HERC-ALLOY Sling Chain preference has been built up over the years, not just by what we say, but by how HERC-ALLOY performs on the job.

Write for Data Book No. 3 which contains much useful manufacturing and application information on HERC-ALLOY Sling Chains.

COLUMBUS McKINNON CHAIN CORPORATION
(Affiliated with Chisholm-Moore Hoist Corp.)
GENERAL OFFICES AND FACTORIES: TONAWANDA, N. Y.
District Offices: New York • Chicago • Cleveland
Other Factories at Angola, N. Y., Dixon, Ill., St. Catharines, Ont., Can., and Johannesburg, South Africa.

For more details circle NED-2199 on enclosed inquiry slip

Time-Savings in Finishing

. . . by the handful

For Working ALL METALS, PLASTICS, WOOD, GLASS, HARD RUBBER, PRESSED and LAMINATED MATERIALS and COMBINATIONS

Concerned with soaring time costs? Hard-to-lick finishing problems? Get these Brightboy samples that will show you the way to substantial savings! Brightboy will save and speed for you every day in a big way. Reason: It *combines* burring, finishing, cleaning, polishing into one time-saving operation; does countless jobs conventional abrasives cannot do—PLUS low-cost, "everyday" finishing. The unique action of Brightboy's *abrasive and rubber which work together* does the job—achieves time savings that frequently amount to fifty per cent!

Ask your dealer for the Brightboy introductory sample card illustrated above, containing samples in 3 textures; also for the Brightboy Catalog-Manual. Write us if he cannot supply you, or if you have any problems in which finishing is involved.

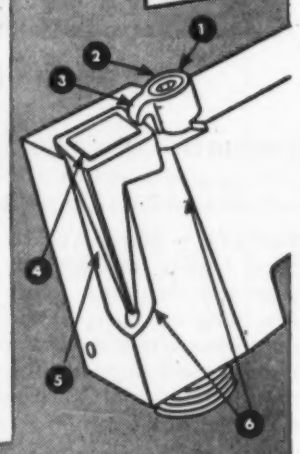
BRIGHTBOY INDUSTRIAL DIVISION
Weldon Roberts Rubber Co.
6th Ave. & No. 13th St.
Newark 7, N. J.
America's Pioneer Manufacturer of Rubber-Bonded Abrasives

WELDON ROBERTS
Brightboy
RUBBER CUSHIONED ABRASIVES

▲ For more details circle NED-2200 on enclosed inquiry slip ▲

NEW! TOP-CLAMP KENNAMATICS give Top Performance

1. SIMPLIFIED DESIGN—one rugged clamp and one sturdy screw for all standard tool styles and sizes.
2. EASY TO GET AT—double end socket type screw permits release of clamp from either top or bottom.
3. EASIER TO INDEX—simply loosen clamping screw and clamp is up and away from insert.
4. CHIP BREAKER—most types can be used on insert without interference with clamp.
5. OPEN FRONT—provides added clearance and eliminates shank abrasion from "chip wash".
6. STRONGER—design provides greater rigidity. Insert is solidly backed up in direction of cutting force.



PLUS } Extended tool life, simplified tool-setting, less grinding expense . . . Available in all "industry standards."

KENNAMETAL Inc. LATROBE, PA., U. S. A.

▲ For more details circle NED-2201 on enclosed inquiry slip ▲

MATERIAL STOCK PILES

10 Times Bigger

(1) Shows volume of material piled by conveyor only. (2) Shows additional storage volume provided by conveyor mounted Swivel-Piler.

from One Conveyor Position!

USE THE

S-A SWIVEL-PILER

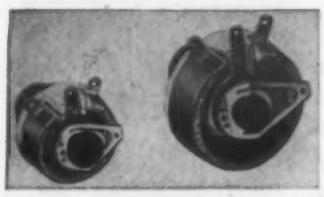
The Stephens-Adamson Swivel-Piler mounts on the end of your fixed or portable conveyor . . . hurls up to 50 tons per hour of materials up to 20 feet in any direction. This makes possible stockpiling of up to *ten times* the amount of material handled by the conveyor only from one position. Materials handled include coal, lime, salt, sulphur, ammonium sulphate, clay, borax and similar bulk materials up to 2" lump size. Investigate this cost-cutting timesaver today.

MAIL COUPON TODAY for full information with photos and diagrams.

STEPHENS-ADAMSON MFG. CO. (S-A)
Merchandise Division
12 Ridgeway Ave., Aurora, Ill.
Please send me:
☐ Bulletin 650 on Conveyor Mount Swivel-Piler
☐ Bulletin 550 on Wheel Mount Swivel-Piler
Name_____
Company_____
Address_____
City_____ Zone____ State____

▲ For more details circle NED-2202 on enclosed inquiry slip ▲

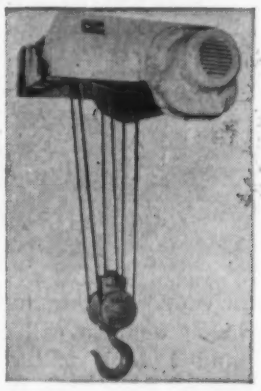
RING TYPE RHEOSTATS for smooth control without backlash



Designed for rheostat or potentiometer use in electronic and industrial control equipment, these 25 and 50-w vitrohm ring type rheostats have a contact arm and drive shaft assembly that furnishes smooth, close control without backlash. Both core and base are molded of high density, low porosity and high dielectric strength ceramic. Toroidally wound high stability resistance wire is held by vitreous enamel. Watt ratings are based on 300° C rise in 40° C ambient. Resistance values for the 50-w size range from 1 to 7500 ohms. Made by **Ward Leonard Electric Co.**, 51 South St., Mt. Vernon, N. Y.

▲ For more details circle NED-2203 on enclosed inquiry slip ▲

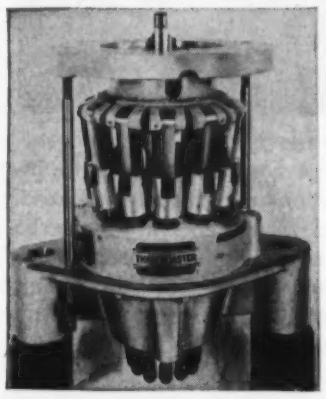
BRIDGE CRANE HOIST capacities range from 1 to 15 tons



Designed for top mounting in double-girder bridge cranes, deck-type Cable King electric hoists are available in 1 to 15-ton capacities. Features include compactness, triple-reduction spur gear drive, totally-enclosed fan-cooled motor, heavy steel suspension frame and heavy duty pushbutton contactor. Weston friction brake on the gear train plus a solenoid operated contracting drum type motor brake assure safe load handling. Control station can be mounted in crane cab or remotely located. Made by **Yale & Towne Mfg. Co.**, Philadelphia Div., Dept. M-1, Roosevelt Blvd. & Haldeman Ave., Philadelphia 15, Pa.

▲ For more details circle NED-2204 on enclosed inquiry slip ▲

ANNULAR TYPE DRILL HEAD is 12-spindle fixed center type

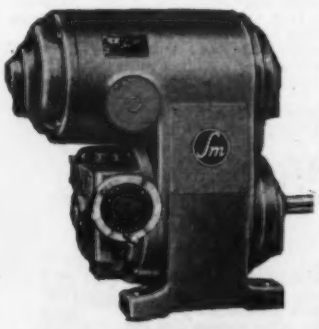


Used for simultaneously drilling twelve ¼-in. holes at 12-degree angles in flat surface near periphery of a steel part, this annular drill head is of fixed center type. Gear train and housing remain stationary while rotating spindles feed drills at angles through a linkage. Made by **Thriftmaster Products Corp.**, 1010 N. Plum St., Lancaster, Pa.

▲ For more details circle NED-2205 on enclosed inquiry slip ▲

MAXIMUM MACHINE OUTPUT ACHIEVED WITH SPEED-TROL

Speed-Trol variable speed drive gives us maximum production on our 8-roll flat work ironer, reports H. J. Caddell, Administrative Assistant, Harper Hospital, Detroit. Through accurate control of speed, we attained minimum drying time for any material . . . operations have been simplified . . . maintenance costs are low . . . and Speed-Trol requires less mounting space.



70 ILLUSTRATIONS showing how Sterling Electric Power Drives reduce production costs. Write for Bulletin No. A-128.

STERLING SPEED-TROL GIVES YOU VARIABLE SPEED CONTROL NECESSARY FOR:

Equipment adaptation to: Sequence synchronization—operators' abilities—load variations due to differences in quantity, quality, weight, size, tension, hardness or shape of material to be processed, machined, conveyed, blended, mixed, etc.

Process control of: Temperature—viscosity—level—pressure—flow—etc.

Time control of: Baking—drying—heating—cooking—pasteurizing—soaking—chemical action—etc.

With Speed-Trol you get the maximum in production, plant efficiency, quality and profit.

STERLING ELECTRIC MOTORS

Plants: New York City 51; Van Wert, Ohio; Los Angeles 22; Hamilton, Canada; Santiago, Chile. • Offices and distributors in all principal cities.

▲ For more details circle NED-2206 on enclosed inquiry slip ▲

FOUR WAY ENTRY STEEL BOUND SKID BOXES

STORE LOOSE ITEMS EFFICIENTLY SAVING FLOOR SPACE BY UTILIZING AIR SPACE

Available plain or with corner tiering pockets for stacking three or four units high. Rugged arc-welded under-frames. Corner angle rounded for safety.

THE LANHAM COMPANY, MAGNOLIA & 12TH STS., LOUISVILLE, KY.

LANHAM FOR LIFETIME

▲ For more details circle NED-2207 on enclosed inquiry slip ▲

Photos Courtesy, Lovell Mfg. Co., Erie, Pa.

"...we selected NAMCO SOLENOIDS because all 19 must operate in EXACT SYNCHRONIZATION on this precision cutting operation"

The nineteen pairs of knives in this special machine cut off eighteen identical lengths of rubber rolls for washing machines. F. J. Fink & Co. designed them to operate at exactly the same instant. In their own words, "Proper functioning of the machine depends very largely on the reliability of the solenoids that actuate the knives." Naturally, Namco was their choice.

Additional reasons why they selected Namco "Stellite"-Welded Solenoids to do this job, are, to quote them further:"—mounting costs are considerably less than with other solenoids", and, "—their design lends them especially well to integration in a functional machine design."

Wherever you need a push or a pull of up to 25 pounds, it will pay you to investigate Namco Solenoids. They're simple; they're compact—*and they're reliable. We engineer them to your specific requirement.* May we recommend the size, style and method of application best suited to your needs?

Namco "Stellite"-Welded Solenoids are built in a variety of sizes and mountings, both push and pull types, for either AC or DC service, to meet every industrial application. The complete standard range is illustrated and tabulated in Engineering Bulletin EM-52. Ask for your copy.

ELECTRICAL MANUFACTURING DIVISION
182 East 131st Street • Cleveland 8, Ohio

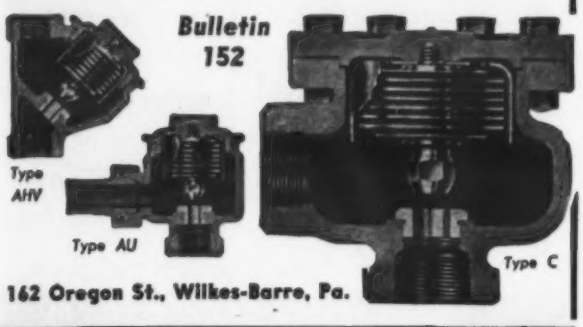
NATIONAL ACME
CLEVELAND, OHIO

▲ For more details circle NED-2208 on enclosed inquiry slip ▲

NICHOLSON TRAPS

SAVE CAR OF COAL WEEKLY

Following replacement of all steam traps, of various makes, with Nicholson units, an Eastern college reports "an average coal saving of 1 carload per week besides much better heat distribution". Credit is given the higher and more even temperatures which Nicholson traps effect. See why large industrial and institutional steam users are increasingly standardizing on Nicholsuns. 5 types; for heat, power, process; sizes ¼" to 2"; press. to 250 lbs.



162 Oregon St., Wilkes-Barre, Pa.

W. H. NICHOLSON & CO.

TRAPS · VALVES · FLOATS

For more details circle NED-2209 on enclosed inquiry slip

Sheehan's TWO PLANE RUBBER BELT MODEL BR.

Another one of the famous Sheehan line of Press and Forge Conveyors—designed for exceptional maneuverability and hard service. This oil-resistant rubber belt is for carrying material that can not be conveyed on metal belts, such as stamping slugs, etc. Top of loading end of belt is within 8 inches of floor. Saves valuable working space because it will go back under presses with ease. Investigate the many construction and safety features not found in other conveyors.

Write today for literature on sizes, special applications and cost data. You will be surprised at Sheehan's high quality and low prices.

LOWER COST
LONGER LIFE
Sheehan Press Conveyors can solve your Press Room problems—

Conveyors
R. T. SHEEHAN CO. PLYMOUTH, MICH

For more details circle NED-2210 on enclosed inquiry slip

COOL TOOLS WORK BETTER, LONGER

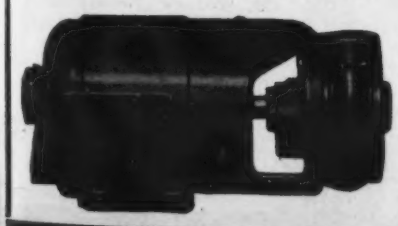
COOL TOOLS BEST WITH "FULFLO"

CENTRIFUGAL COOLANT PUMPS

HOW TO KEEP TOOLS COOL!

1. Be sure you're using the right type of coolant.
2. Bring it to the right spot, pumped and circulated by the FULFLO PUMP designed for your purpose.

Write on your letterhead for professional edition of FULFLO MECHANICAL DATA BOOK



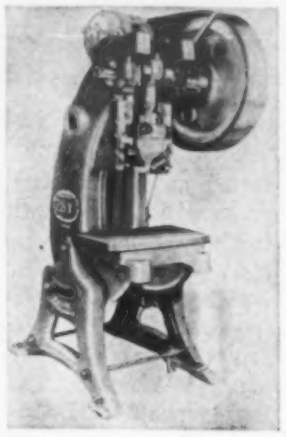
MODEL AG3M

Motor-driven spring tension packing; replaceable pump shaft. ¼ hp through Model AG7M-1 hp.

FULFLO THE FULFLO SPECIALTIES CO. Inc.
BLANCHESTER, OHIO

For more details circle NED-2211 on enclosed inquiry slip

DEEP-THROAT PUNCH PRESS
28-ton model is of inclinable type



Readily inclinable and locking positively in any position, model 28X deep-throat press is adaptable for toolroom, production or test runs. Precision ground parts are balanced and surface finished to Brush Analyzer standards. Ground forged-steel crankshaft, hand-scraped bearings, solid web wheel and gears assure smooth, high speed operation. Two-button control affords operator safety. Made by **Walsh Press & Die Co.**, 4709 W. Kinzie St., Chicago 44, Ill.

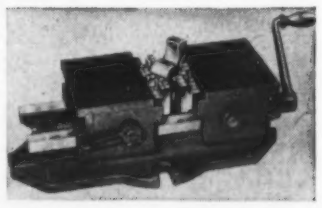
For more details circle NED-2212 on enclosed inquiry slip

POWER WIRE STRIPPER
designed for armature lead work

Especially designed for a specific gage and type of wire, this two-wheel Rush wire stripper permits high production stripping of armature leads. Rotating wheels develop sufficient frictional heat to melt the insulation and brush away the residue. Wire is not scored or broken. Pressure regulator permits stripping multiple wires. Unit has list price of approximately $160 or is available on test rental plan from **Eraser Co.**, 108 S. State St., Syracuse 2, N. Y.

For more details circle NED-2213 on enclosed inquiry slip

MACHINING VISE
for short production runs



Adaptable to all types of machine tools, the American positive grip vise has even pressure distribution to grip all contours of odd-shaped pieces. After machining one piece of work that is identical with others, the jaws are released slightly and the mold or matrix is retained for the next piece with no realignment necessary. Vise, offered with serrated or plain steel jaws, has a series of steel fingers, each independently slidable toward or away from its opposing member or remaining stationary, depending upon the contour of the object being held. Two models are offered with maximum jaw openings of 3⅛ and 6⅛ in. Available from **Connors & Davis Sales Corp.**, Circuit Ave. & Clark St., West Springfield, Mass.

For more details circle NED-2214 on enclosed inquiry slip

American Manufacturers Specify "Weld-Bilt" Trucks for Overseas Plants

Leading American manufacturers have learned that, in remote plants, where parts and service are hard to come by, Weld-Bilt Trucks stand up and deliver.

You can SEE the greater strength and durability in Weld-Bilt Equipment . . . in heavier arc-welded construction, in sturdier operating parts, in many innovations that assure easier, friction-free operation. Write today for catalog and details on the complete Weld-Bilt Line.

WEST BEND EQUIPMENT CORPORATION
MATERIALS HANDLING ENGINEERS
311 WATER ST. • WEST BEND, WIS.

For more details circle NED-2215 on enclosed inquiry slip

Solder faster, better...

WASSCO GLO-MELT RESISTANCE SOLDERING

for complete details WRITE

Basic GLO-MELT Power Unit with pencil handpiece accessory. Built of UL approved component parts and rated for 450 Watts. Heats instantly . . . no waiting, no waste, no danger. 24 separate heats. Connects to any 115 V. 60 C. power source. Ideal for all soft solder production work.

Pliers Handpiece, for sweat soldering joints in copper tubing, piping and large electrical terminals.

"Can Sealer" fixture for production line soldering seams of all types of metal enclosures.

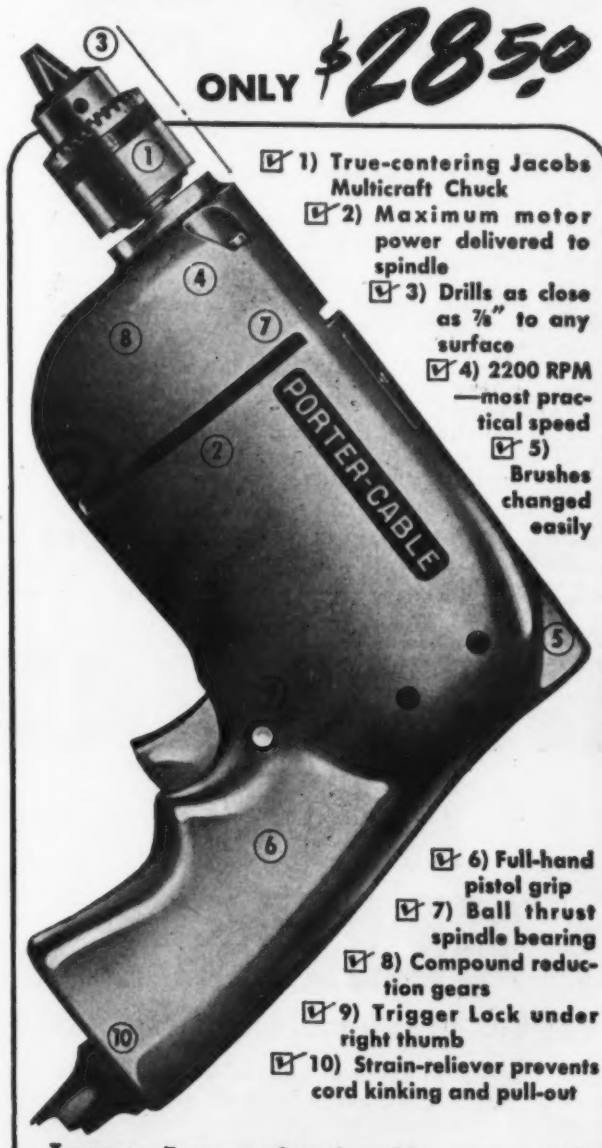
WASSERLEIN MFG. CO. INC.
126 W. CASS ST. • JOLIET, ILLINOIS

For more details circle NED-2216 on enclosed inquiry slip

New PORTER-CABLE Guild

High-Score ¼" DRILL

ONLY $28.50



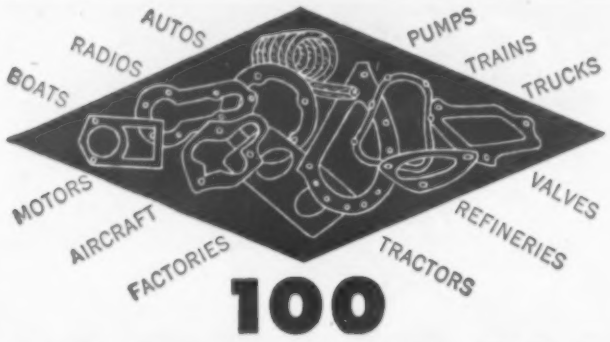
1) True-centering Jacobs Multicraft Chuck
2) Maximum motor power delivered to spindle
3) Drills as close as ⅞" to any surface
4) 2200 RPM—most practical speed
5) Brushes changed easily
6) Full-hand pistol grip
7) Ball thrust spindle bearing
8) Compound reduction gears
9) Trigger Lock under right thumb
10) Strain-reliever prevents cord kinking and pull-out

IT TOOK 7 years of nationwide surveys and field testing to produce this drill. That's why you'll find the new Guild *scores highest* in value of all general duty drills. Every performance feature you drill users told us you wanted—every design and construction feature our engineers insisted on—is built into this truly up-to-the-minute ¼" drill. Prove what we say . . . score the Guild Drill point by point against *all* others!

AT YOUR PORTER-CABLE DEALER'S

Or write for free guide, "How to Choose a Drill," Porter-Cable Machine Co., 6131 N. Salina St., Syracuse, N. Y.

For more details circle NED-2217 on enclosed inquiry slip



100 OR 100,000,000

GASKETS • PACKINGS • DIE-CUTS

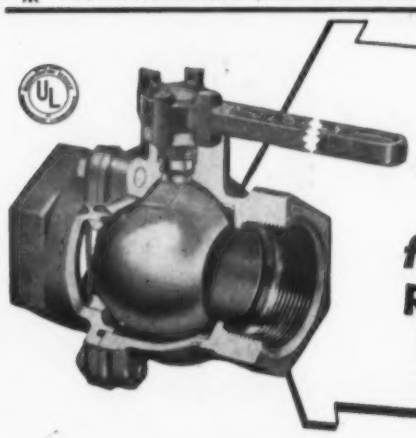
for EVERY industry

Whatever your needs—100 gaskets or 100,000,000—standard materials or special—you can rely on Fel-Pro to furnish exactly the right item for your particular service. The entire facilities of three modern plants and over 30 years of experience in supplying gaskets, packings and die-cuts to industry are at your disposal. For FREE Portfolio, containing samples of over 50 materials for solving special problems, write TODAY to:

FELT PRODUCTS MFG. CO., 1510 Carroll Avenue, Chicago 7, Ill.
Warehouses in: Atlanta, Boston, Dallas, New York, Los Angeles, Oakland, Portland

FEL-PRO Utilize Newest Materials ENGINEERED Specifically designed for your product **gaskets**

▲ For more details circle NED-2218 on enclosed inquiry slip ▲



Just a quarter turn for FULL ROUND FLOW

Dependability and efficiency are the reasons why Rockwood Ball Valves are in a class by themselves.

A quarter turn opens the ball valve for full, *round* flow — liquids follow the natural course of flow without halt or turbulence. Another quarter turn and the floating bronze ball, combined with the synthetic rubber seat, forms a leakproof seal. Chrome-plating of bronze ball prevents scratching, pitting and abrasion.

For use in oil refineries, food, textile, chemical and rubber plants, etc. Tested by Underwriters' Laboratories, Inc. For further details, send for free Bulletin V-4. Rockwood Sprinkler Company, 44 Harlow Street, Worcester 5, Mass. Distributors in all principal cities.

ROCKWOOD BALL VALVES
THE FLOW IS AS ROUND AS THE PIPE ITSELF

▲ For more details circle NED-2219 on enclosed inquiry slip ▲

WICKWIRE ROPE SLINGS

tough...strong...extra flexible

Wickwire Rope Slings are offered in both braided and conventional types . . . are designed to hitch on to heaviest loads with utmost safety, ease of handling and absolute security of attachments. Where extreme flexibility is required, Wickwire Slings of braided design give definite advantages in non-kinking qualities and in their ability to handle materials of all types and shapes without taking a permanent set.

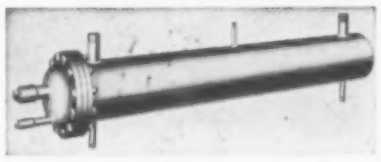
Let us know your requirements. Our engineers will be pleased to analyze your sling problems and recommend the correct solution.

THE COLORADO FUEL AND IRON CORPORATION – Abilene (Tex.)
Denver • Houston • Odessa (Tex.) • Phoenix • Salt Lake City • Tulsa
THE CALIFORNIA WIRE CLOTH CORPORATION – Los Angeles
Oakland • Portland • San Francisco • Seattle • Spokane
WICKWIRE SPENCER STEEL DIVISION–Boston • Buffalo • Chattanooga
Chicago • Detroit • Emlenton (Pa.) • New York • Philadelphia

WICKWIRE ROPE
CFI PRODUCT OF WICKWIRE SPENCER STEEL DIVISION
THE COLORADO FUEL AND IRON CORPORATION

▲ For more details circle NED-2220 on enclosed inquiry slip ▲

LIQUID COOLERS
direct expansion sheet and tube type



Built to ASME specifications, the CWF shell and tube liquid coolers and direct expansion evaporators are tested at 300 psi and certified for 150 psi working pressure. Intended for refrigeration and air conditioning system, the units are available in shell diameters from 8 to 20 in. in 2-in. increments and tube bundle lengths of 5 to 13 ft in 1-ft increments. Refrigerant velocity is controlled to provide minimum pressure drop with efficient transfer and without oil logging. Made by **Taco Heaters, Inc.**, 137 South St., Providence 3, R. I.

▲ For more details circle NED-2221 on enclosed inquiry slip ▲

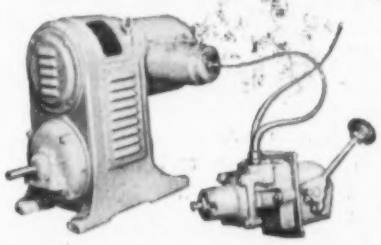
POWER PUNCH PRESS
has 24-in. deep throat

Rated 175 strokes per minute, the model 150 power punch press has a 24-in. deep throat and a 2-in. stroke. Machine is equipped with a nonrepeat clutch which can be released for automatic feed, if desired. With the flywheel in the rear, easy feeding with a high margin of operator safety is possible. Press has a 5-ton safety factor and is mounted on an all-welded steel frame. Made by **Whitney Metal Tool Co.**, 400 Forbes St., Rockford, Ill.

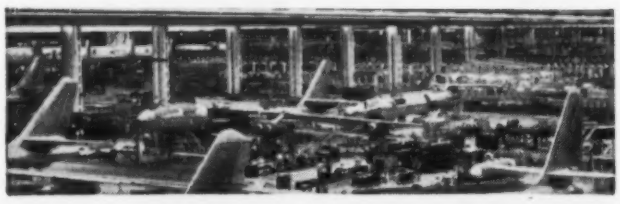
▲ For more details circle NED-2222 on enclosed inquiry slip ▲

REMOTE SPEED CONTROL
operates on shop air pressure

Remote control of speed of U. S. Varidrive motors is possible with this pneumatic positioning unit. It has an air-operated plunger attached to drive speed changer and air valve which remotely controls the positioning unit. Pedal, lever, cam or wheel actuated valves are available for systems which operate on 60 or 100 psi air pressure. By using check valves and control station selectors, speed of drive can be changed from any number of stations, or any number of drives can be controlled from single station if all the drives are to operate at same speed. Made by **U. S. Electrical Motors Inc.**, Dept. NED, 200 E. Slauson Ave., Los Angeles 54, Calif.



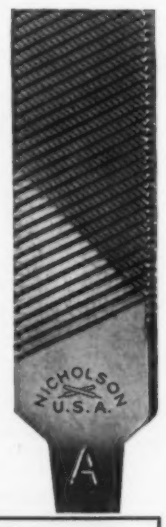
▲ For more details circle NED-2223 on enclosed inquiry slip ▲



BOEING SPEEDS PRODUCTION
with "The right file for the job"

The vast military program has made "Faster production" a cry in every contributing industry . . . with thousands of tools and machines claiming the ability to respond. In few manual operations can speed and efficiency be more noticeably increased than in filing. And where Nicholson Special Purpose Files are used the results are usually outstanding. In them "Special Purpose" means special design for *special facility* in working on specific jobs and materials.

You'll do well in letting a technically minded Nicholson distributor or field engineer help your superintendents in assigning the right files to their difficult, unusual and mass-production jobs.



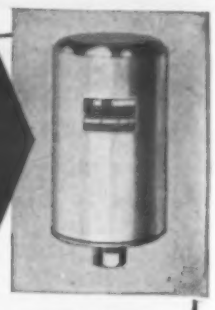
(Right) Nicholson Special Aluminum Type "A" File – for fast metal removal yet leaving a good finish. Special tooth construction minimizes clogging and "chatter."

NICHOLSON FILE COMPANY
34 Acorn St., Providence 1, R. I.
(In Canada, Port Hope, Ont.)

NICHOLSON
A file for every purpose
SOLD THROUGH INDUSTRIAL DISTRIBUTORS

▲ For more details circle NED-2224 on enclosed inquiry slip ▲

SENSITIVE, PRECISE PRESSURE-VACUUM CONTROLS



TYPE G9

The pressure vacuum control illustrated is an accurate, highly sensitive, precision-built unit. It may be had with an internal or external, calibrated or uncalibrated adjustment. It is watertight unless the adjustment is external.

It is designed for applications requiring constant repeatability of any on-off differential between .2" and 10" w.c. For full details send for bulletin #5-1.

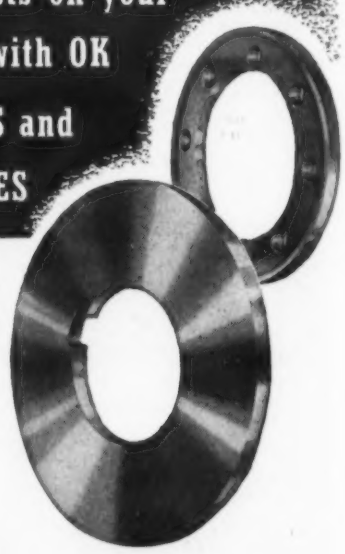
UNITED ELECTRIC CONTROLS COMPANY
81 School Street, Watertown, Mass.

STANDARD & SPECIAL THERMOSTATS & PRESSURE SWITCHES

▲ For more details circle NED-2225 on enclosed inquiry slip ▲

it's OK ...let'er go!

cut costs on your toughest jobs with OK SHEAR BLADES and SLITTER KNIVES



Heat Treating does it. Gives them maximum toughness and keen edge holding qualities. You get longer runs between re-grindings.

OK Battle Axe Shear Blades for shearing up to and including ¼" mild steel or equivalent.

OK Dura-Chrome Shear Blades for shearing hot or cold plate steel up to 1¼" or equivalent.

OK Standard Shear Blades for any type shearing when only short runs or little shearing is done; also for heavy plate shearing.

OK Gang Slitters for slitting steel, precision ground to ± .0002 tolerances.

OK Rotary Shears and Cutters for trimming sheet steel and light plates.

Write today giving quantity and sizes.

GO WITH OHIO GREEN

THE OHIO KNIFE CO.
CINCINNATI 23, OHIO

▲ For more details circle NED-2226 on enclosed inquiry slip ▲

IN MANY PRODUCTION PLANTS!

Continuous inspection unites with blind, straight-through and templet grinding by projection during the grinding period. This complete speedy machine handles a wider range of work than ever before. Difficult jobs in steel and tungsten carbide which required several machines are dispatched with ease and profit on Visual-Grind. Tolerances and accuracy are progressively controlled by visual reference. A precision optic system gives trueness and definition. Husky construction insures rigidity and long life.

Ask for Bulletin N-11.

VISUAL GRIND THE CLEVELAND GRINDING MACHINE CO.
1643 EDDY ROAD • CLEVELAND 12, OHIO

For more details circle NED-2227 on enclosed inquiry slip

Over 85% of the torque wrenches used in industry are

STURTEVANT TORQUE WRENCHES

Read by Sight, Sound or Feel

- Permanently Accurate
- Practically Indestructible
- Faster—Easier to use
- Automatic Release
- All Capacities

in inch ounces
...inch pounds
...foot pounds
(All sizes from 0-6000 ft. lbs.)

Every manufacturer, design and production man should have this valuable data. Sent upon request.

P.A. STURTEVANT CO.
ADDISON QUALITY ILLINOIS

For more details circle NED-2228 on enclosed inquiry slip

an ACCO product

Army Type WRIGHT SAFEWAY

A steel hand hoist with compact, adjustable suspension and trolley to fit various width I-beams. Designed for low overhead. Easily converted to 2-wheel geared trolley unit. Long-life features mean low-cost service.

See your WRIGHT Hoist distributor or write for Bulletin DH-269 today.

2-wheel GEARED TROLLEY ASSEMBLY

WRIGHT Hoists Trolleys Cranes

ACCO
WRIGHT HOIST DIVISION
AMERICAN CHAIN & CABLE
York, Pa., Chicago, Denver, Detroit, New York, Philadelphia, Pittsburgh, San Francisco, Bridgeport, Conn.

For more details circle NED-2229 on enclosed inquiry slip

SMALL ENGINE TESTER
checks ignition system quickly

Condition of electrical and ignition system of small one and two-cylinder gasoline engines can be determined readily with this flywheel magneto tester. Both the primary and high tension circuits are tested with single instrument. Functioning of spark plug is also detectable. Meter pointer classifies circuits as weak, fair or good. Insulated clip-on test leads can be used with one hand. The guess work is removed from servicing of small engines. Made by **Hills Service Supply,** Dept. N, 20951 Beachwood Dr., Rocky River 16, O.

For more details circle NED-2230 on enclosed inquiry slip

STORAGE CONTAINER
wire type has 5200-lb load capacity

Center legs have been eliminated on the Clearview model storage Cargotainer for handling with any type moving equipment. Loads can extend above top wire, since improved leg design makes stacking easy and more secure. Special corner plates resist shock. Container has successfully handled 5200-lb fluid loads and static loads in excess of that amount. It folds to one-fifth the unfolded size and can be stacked with strip base models for interchangeability. Made by **Pittsburgh Steel Products Co.,** 1403 Grant Bldg., Pittsburgh 30, Pa.

For more details circle NED-2231 on enclosed inquiry slip

PLANT LANE MARKING DISKS
warn truck operators by sight, feel

Constant painting of plant traffic lanes is eliminated by these Tenite II plastic Saf-T-line Marker disks which can be laid on asphalt, wood or concrete floors. Available in bright yellow or white, disks have 3-in. diameters, are ¼-in. high in center and taper to a fine feather edge. Vehicle operators are warned of crossing lines by sight as well as feel. Not affected by oil, grease, hydrocarbons, or ordinary cleaning solvents, disks have outdoor as well as indoor application. They are affixed to floor by special mastic and nails. Made by **Campro Sales Co.,** Industrial Products Div., 1310 Fourth St. S. W., Canton 2, O.

For more details circle NED-2232 on enclosed inquiry slip

14 DAY DELIVERY

HOW TO SPEED PRODUCTION
HOW TO SAVE ⅓ INSTALLATION SPACE
HOW TO GET MORE BORE POWER
HOW TO SAVE MONEY

Use Dependable, Powerful

O-M CYLINDERS

AIR—WATER—HYDRAULIC

In full range of sizes (1½" to 8" bores). All machined steel with bearing bronze throughout. Interchangeable parts and mounting brackets.

FREE CATALOG
Brand new! 28 pages of specifications, diagrams, and parts listing.

FREE TEMPLATES
Complete set. Shows all cylinders and mounting brackets, ½ or ¼ scale.

Write today to

ORTMAN MILLER MACHINE CO.
1222-24 150th St., Hammond, Indiana

For more details circle NED-2233 on enclosed inquiry slip

NOW! A NEW CONCEPT IN CONCRETE FLOORS..

YEARS AHEAD

DYNAPAKT CONCRETE FLOORS

The Dynapakt system is years ahead providing the best concrete floors that can be obtained. Used for topping new or old floor bases, Dynapakt is concrete at its modern best. Users benefit from the high strength floors that have never been achieved before!

GET THE COMPLETE FACTS. WRITE FOR THE NEW ILLUSTRATED BROCHURE..."TRAFFIC CONCRETE, A STUDY IN SPECIALIZATION".

FLASH-STONE COMPANY, Inc.
3723 PULASKI AVENUE, PHILADELPHIA 40, PENNA.

specialists in industrial floor installations . . . nationally

For more details circle NED-2234 on enclosed inquiry slip

New OHMITE POWR-RIB RESISTORS

Here is a new resistor which provides *dependable* operation for high-current applications.

Ohmite Powr-Rib edge-wound type resistors are wound with a heavy ribbon of resistance alloy on a ceramic core. This ribbon is rated at 375°C (707°F) temperature rise. All other metal parts are specially plated to prevent oxidation at high operating temperatures, and to insure good electrical contact. The ceramic core is divided into five sections to provide flexibility and resistance to shock. Available in full-rated capacities from 18.0 to 108 amperes; in resistance values from 0.100 to 2.85 ohms.

Write for BULLETIN No. 141

OHMITE MANUFACTURING CO.
4843 Flournoy St.
Chicago 44, Ill.

Be Right with OHMITE®

RHEOSTATS • RESISTORS • TAP SWITCHES

For more details circle NED-2235 on enclosed inquiry slip

CHICAGO TRAMRAIL
Twin Hook installation increases production decreases handling cost.

Twin-Hook Underhung Motor-Driven CHICAGO TRAMRAIL Crane used in a large manufacturing plant for anodyzing parts.

This installation is typical of the wide adaptability of Chicago Tramrail Cranes to the specialized needs of industry. Manufacturing a complete line of underhung and top-running overhead cranes with capacities to 10 tons and spans to 60 feet, our Engineering Department works closely with your organization to select the exact crane which best meets your requirements, and to design and erect runways which will speed the flow of work.

Consult CHICAGO TRAMRAIL for experienced help in your material handling problems. Catalog upon request.

CHICAGO TRAMRAIL CORPORATION
4000 W. Washington Blvd., Chicago 24, Illinois

For more details circle NED-2236 on enclosed inquiry slip

SO SIMPLE...

KESTER FLUX-CORE SOLDER

So Simple . . . to end your soldering troubles with Kester's flux control (different core sizes) plus the wide selection of Flux-Core Solders in many wire sizes ranging from .009" to ¼-inch.

Kester also provides Field Engineering Service.

Free Technical Manual. Send for your copy of "SOLDER and Soldering Technique" today.

KESTER SOLDER COMPANY
4249 Wrightwood Ave., Chicago 39
Newark 5, New Jersey • Brantford, Canada

KESTER SOLDER

For more details circle NED-2237 on enclosed inquiry slip

Now Spray On design layout ink

"JUST PRESS THE BUTTON ON THE CAN"

Faster! Easier!

No brush, no waste, no mess! Self-pressurized can sprays on CROWN Design Layout Ink in fine mist that dries to hard surface in a minute. Dark blue is standard—other colors on volume purchases.

ORDER TODAY!
$1.59 PER 12-OZ. CAN
15% discount in cases of 12
Additional discount for larger quantities
FOB Sycamore, Illinois

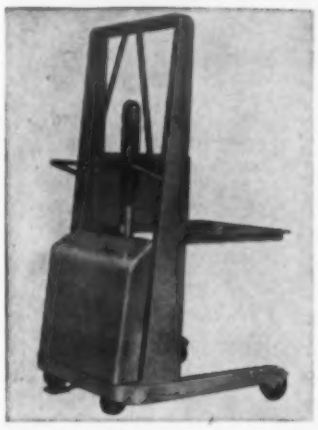
CROWN INDUSTRIAL PRODUCTS CO.
406 Borden Ave., Sycamore, Illinois

Please ship at once
_____(how many?) cans
_____(how many?) cases
CROWN Design Layout Ink

Name_____
Company_____
Our Purchase Order No._____
Address_____
City_____ Zone____ State_____

For more details circle NED-2238 on enclosed inquiry slip

SMALL POWER LIFT TRUCK
handles loads weighing up to 1000 lb



Capable of lifting 1000-lb load from floor level to height of 4 ft in 15 seconds, model 1000-E hydraulic-electric lift truck is powered by automotive storage battery and has integral charger for overnight charging. Lift is actuated by piston type hydraulic pump. Control of descent of 24 x 24-in. material platform is positive with fingertip lever. Two fixed-position large-diameter front wheels and swivel type trailing wheels afford maneuverability. Made by **Century Products Co.**, Dept. KP, 5925 Highway 7, Minneapolis 16, Minn.

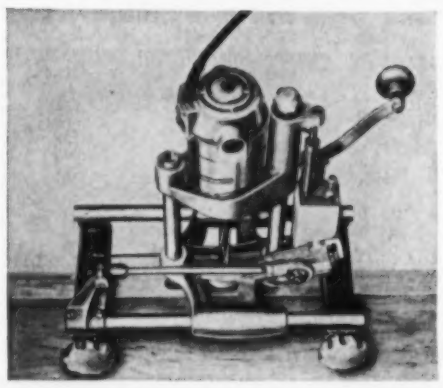
For more details circle NED-2239 on enclosed inquiry slip

MANUAL COLLATOR
speeds gathering of paper sets

Measuring only 15½ inches square, this table top collator facilitates the gathering of two to eight pages into sets in a single operation. It is offered in five and eight bin models and can accommodate paper in sizes from 3½ x 8 in. to 8½ x 14 in. It is fully portable and easy to use. Made by **Thomas Mechanical Collator Corp.**, Dept. M, 30 Church St., New York 7, N. Y.

For more details circle NED-2240 on enclosed inquiry slip

LOCK MORTISER
uses interchangeable power unit



Using the same power unit as the model 511 router and model 512 plane, model 513 lock mortising machine, when mounted on a door, cuts out a precision-fit recess for a lock box in 30 seconds. A templet is then used with the router to cut the face plate recess. Made by **Porter-Cable Machine Co.**, Dept. PR-6, 1710 N. Salina St., Syracuse 8, N. Y.

For more details circle NED-2241 on enclosed inquiry slip

GOOD NEWS!
NOW—Grind Carbide Tools WITHOUT Diamonds!

★ AVAILABLE IMMEDIATELY
★ 3 SIZES:
14" x 4" x 11"
10" x 2" x 7"
6" x 1" x 4"
★ ECONOMICAL
★ RAPID CUTTING
★ STANDARD PLATE MOUNTING

FINISH-GRIND Carbide Tool-points with BAY STATE Vitrified Wheels.

- Proven in field production tests.
- Cut as fast as diamond wheels.
- Cut costs to a minimum.

BAY STATE

ORDER A TRIAL WHEEL TODAY

BAY STATE ABRASIVE PRODUCTS CO.
Westboro, Mass., U. S. A.
Branch Offices and Warehouses: Chicago, Cleveland, Detroit, Pittsburgh
Distributors — All Principal Cities
In Canada: Bay State Abrasive Products Co. (Canada) Ltd., Brantford, Ont.

For more details circle NED-2242 on enclosed inquiry slip

These Are Famous Super Davohms..

..Precision Wire Wound Resistors by DAVEN

Electronic Specialists for More Than a Generation

- Accuracies to .05% • All temperature coefficients
- All types of mountings • Manufactured to famous DAVEN standards of precision • Excellent deliveries

Write for Catalog Data

THE DAVEN CO. 199 Central Ave. Newark 4, N. J.

For more details circle NED-2243 on enclosed inquiry slip

NEW!

INDUSTRIAL Rapid-Wheel*
GRAVITY CONVEYOR

Moving tote boxes? Heavy cartons? Palletized parts? With Rapistan's new Industrial Rapid-Wheel you now get roller conveyor capacity at wheel conveyor cost. New strategic arrangement of additional steel center bands gives extra-rigid support for every conveyor wheel . . . extra-deep channel frame (3½") raises capacity to 400 lbs. per foot! You get non-skid "wheel action" on turns, smoother flow with less pitch, and longer economical gravity runs.

Rapistan's new Industrial Rapid-Wheel is available in 5' or 10' sections . . . 12" or 18" channel widths. It's a real cost-cutter.

*T.M.

For answers to your conveying problems *send today for prices, specifications, and full information on Rapistan's new low-cost Industrial Rapid-Wheel. To meet special needs, Rapid-Wheel modifications are available at mass-production prices. Write today.*

The RAPIDS-STANDARD CO., Inc.
759 Rapistan Bldg., Grand Rapids, Michigan

Rapistan®
BETTER CONVEYING EQUIPMENT

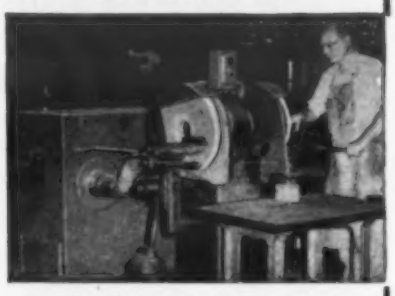
Representatives in Principal Cities

CONVEYORS • INDUSTRIAL CASTERS • WHEEL-EZY® TRUCKS

For more details circle NED-2244 on enclosed inquiry slip

STOP DUST

Instantly with DUSTKOP

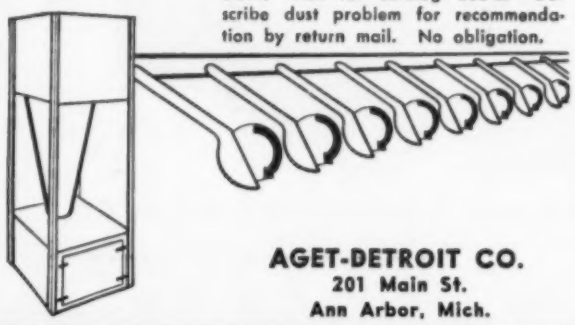


DUSTKOP ▶ 1400 cfm

▼ DUSTKOP 3600 cfm

300 cfm to 10,000 cfm per unit (22 models).

Standard, pre-tested, available from stock. Ask for catalog 605-2. Describe dust problem for recommendation by return mail. No obligation.



AGET-DETROIT CO.
201 Main St.
Ann Arbor, Mich.

▲ For more details circle NED-2245 on enclosed inquiry slip ▲

PAGE FENCE - Since 1883

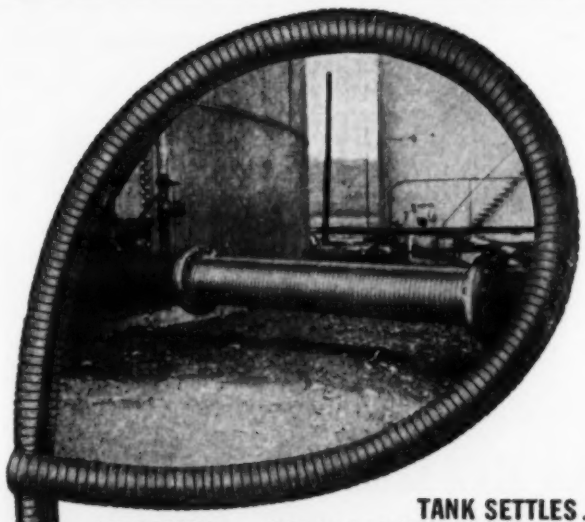
• AMERICA'S FIRST WIRE FENCE •

Defense against hazards which could hinder or stop production is a major function of Page Chain Link Fence, guardian of persons and property for more than 60 years. Consult the skilled Page Fence erecting firm near you, whose name we will send with fence data on request. Cost estimates, no obligation. For information:

Write to PAGE FENCE ASSOCIATION in Monessen, Pa., Atlanta, Bridgeport, Chicago, Denver, Detroit, Los Angeles, Philadelphia, New York or San Francisco.

PRODUCT OF PAGE STEEL & WIRE DIVISION OF AMERICAN CHAIN & CABLE COMPANY, INC.

▲ For more details circle NED-2246 on enclosed inquiry slip ▲



TANK SETTLES...
PIPE WALKS... BREAK AVOIDED WITH PENFLEX

Tank settlement . . . thermal expansion and contraction caused misalignment of pipe and the consequent breakage of rigid pipe connections on large oil storage tanks.

Today, this large New England storage center has no trouble with pipe breakage. A length of 12" I.D., four-wall interlocked specially packed Penflex tubing was installed with tight-packed flanges. No amount of settling of the tank of thermal expansion causes breakage of connections. The easy flexing Penflex "walks" with the tank . . . yet maintains a tight leak-proof connection at all times. Leakage has been eliminated . . . fire hazard reduced.

Let Penflex engineers help you on flexible tubing application problems. Write for "Flexineering," a valuable production aid.

Pennsylvania Flexible Metallic Tubing Company, Inc., 7208 Powers Lane, Phila. 42, Pa.
Branch Sales Offices: Boston • New York • Chicago • Houston • Cleveland • Los Angeles

penflex

HEART OF INDUSTRY'S LIFE LINES

▲ For more details circle NED-2247 on enclosed inquiry slip ▲

PAPER SHREDDER
desk model is easily operated

Correspondence, cancelled checks, ledger sheets, blueprints and other paper material of a confidential nature can be shredded into ¼-in. strips by the Silver Executive paper shredder. The desk model machine shreds from 6 to 15 sheets at one time and is quiet enough to be used next to a telephone. It is 13 in. high, 15½ in. square and weighs 90 lb. Cutting knives are well guarded and operation is from 110-v, 50 or 60-cycle circuit. Power furnished by its ¼-hp motor is sufficient to cut straight pins and staples, but paper clips should be removed. Made by **Industrial Shredder & Cutter Co.**, 107 Mill St., Salem, O.

▲ For more details circle NED-2248 on enclosed inquiry slip ▲

ELECTROCLEANING MATERIAL
prepares zinc castings for plating

Formulated as an electrolytic conditioner for zinc base die castings in preparation for plating, composition No. 95 removes surface films, disturbed metal and soils that might cause peeling and blistering. It avoids hydrogen gas formations that raise blisters when castings are heated to as high as 300° F for one hour after electroplating. Films that might impair brightness of electroplate are removed as well, and no blackening during anodic cleaning is evident. Composition rinses so freely that even with dry-down time as long as 1 minute, no residue films appear on castings. Made by **Oakite Products, Inc.**, 132G Rector St., New York 6, N. Y.

▲ For more details circle NED-2249 on enclosed inquiry slip ▲

TWIN DIODE ELECTRONIC TUBE
usable in mobile and aircraft service

Model 5726 high-perveance miniature twin diode is especially applicable as a detector in electronic circuits using wide-band amplifiers. It will give dependable service under shock and vibration. Two coiled tungsten heaters are internally connected in series to provide fail-safe operation in applications requiring that burnout of either heater will make the heaters of both units simultaneously inoperative. Made by **Radio Corp. of America**, Tube Dept. Harrison, N. J.

▲ For more details circle NED-2250 on enclosed inquiry slip ▲

Now **install**

FEDERAL SIGNALS

for **2** *vital* **purposes!**

Plant routine efficiency is geared to Federal signals . . . now, with air raid and sabotage danger possible, safety of your vital manpower can depend on swift, sure alert. Adequate and dependable Federal signals will assure prompt warning. Reserve siren for warnings, use horns and bell for signals. Utilize these familiar voices of industry to save lives as well as to implement production. Write Federal NOW for Industrial Signal catalog—see how you can get **complete** protection at moderate cost.

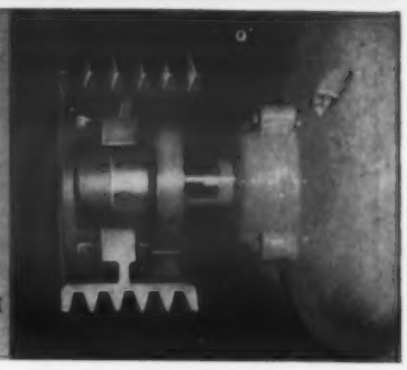
FEDERAL ENTERPRISES, INC.
Formerly Federal Electric Company, Inc.
8711 South State St. Chicago 19, Ill.

▲ For more details circle NED-2251 on enclosed inquiry slip ▲

QD Trade Mark

Sheaves

HUB FIRST— OR HUB AND RIM TOGETHER



1 or 2 piece mounting —as you like it

Small sizes? Install the Worthington QD Sheave in one piece.

Large sizes? Install light hub first, then heavier rim.

Changing speeds? Let hub stay put, forget about realignment.

More machinery manufacturers use the Worthington QD than any other hub and rim combination because it's easy to get on, easy to get off, yet always tight on the shaft!

Worthington Pump and Machinery Corporation, Multi-V-Drive Sales Division, Buffalo, N. Y.

MV.2.5

WORTHINGTON
Multi-V-Drives

▲ For more details circle NED-2252 on enclosed inquiry slip ▲

ENGRAVE

PANELS OF ANY DIMENSIONS IN YOUR OWN SHOP WITH THE Engravograph

Portable Model I-S

TRACER GUIDED FOR UNSKILLED LABOR

The only portable machine which reproduces 15 sizes from one master alphabet.

The only one with adjustable copy holding slides for multiline engraving in one set-up.

Self-centering holding vise for nameplates.

Send for Booklets

I-S—26 portable model • H—26 heavy duty model

NEW HERMES, Inc. 13-19 University Place, N.Y. 3
In Canada: 359 St. James St., Montreal
World's Largest Manufacturer of Portable Engraving Machines

▲ For more details circle NED-2253 on enclosed inquiry slip ▲

PEAK PRODUCTION with *FLOW-COLD**

For increased production in welding, plating or machine tool operation use the Acme Flow-Cold Liquid Chiller. Whether your problem is cooling water for welding, plating and anodizing operations or oil coolants for machine tools, you'll find the 'packaged' Flow-Cold unit the perfect answer. Regardless of fluctuations in climactic or surrounding temperatures, your solutions are maintained at a *constant, even temperature.*

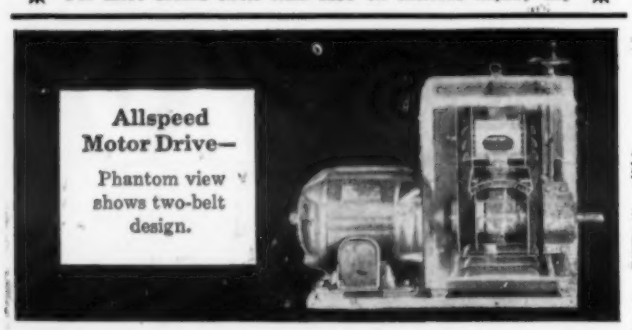
These chillers keep your coolants at an optimum temperature for *peak production,* permitting greater speed of operation, maximum production and longer tool life *with less maintenance.* Compact, packaged and easy to install, top industrial users are installing Flow-Colds and reporting large production gains. Write Dept. FC today for complete details.

*Trade Mark

ACME INDUSTRIES, INC.
Flow-Cold Division, JACKSON, MICH.

Continuously serving the Air Conditioning and Refrigeration Industries since 1919

For more details circle **NED-2254** on enclosed inquiry slip



Why 2 belts instead of one on ALLSPEED MOTOR DRIVES?

This is an easy one:

Less space, because of compact design. Available in upright or horizontal models, with output on right or left hand side . . . *Longer life,* because belts are narrower, wear better . . . *Easier replacement*—no dismantling to change belts.

Other features you'll like: Automatic positive belt tensioning . . . Bronze bushings on all wearing parts . . . Can be run in either direction . . . Mounted in any position . . . Shielded and life lubricated ball bearings . . . Uses standard foot mounted motors.

Sizes from ⅓ to 7½ hp; up to 16-1 range of variation. Units available without motors.

Write for Bulletin AS-1600-B6. Worthington Corporation, Allspeed Drive Division, Holyoke, Mass. AS.2.6

WORTHINGTON
Allspeed Drives

For more details circle **NED-2255** on enclosed inquiry slip

TEFLON IMPREGNATED ASBESTOS PACKING

The Advantages of Teflon
PLUS
Greater Resiliency
Moderate Cost

Chemically inert, heat-resistant, anti-hesive Teflon has solved many packing problems. But under certain conditions, Teflon's cold-flow characteristic causes trouble. The solution to cold-flow is Flexrock #401 braided white asbestos packing impregnated *throughout* with Teflon.

#401 offers solid Teflon's advantages *plus* superior resiliency, permitting a tight, lasting seal at low gland pressure, against *acids, alkalis and solvents.* #401 is versatile, eliminates the need for costly, machined Teflon rings. Stock it for applications demanding absolute *non-corrosion, non-contamination.* Won't "seize" a shaft or spindle; serviceable from −100°F. to 500°F. In continuous lengths, square section, from ⅛" to 1" by 1/16" increments.

We furnish a complete line of *Teflon Packing:* solid or impregnated in endless ring or continuous braided construction; *Teflon Gaskets:* solid or jacketed; *Teflon Stock:* sheets, tape, cylinders, rods, tubing, bars. *Also, special shapes.*

Mechanical Packing Division
FLEXROCK COMPANY
PHILADELPHIA 4, PA.

Mechanical Packing Division
FLEXROCK COMPANY
3603 Filbert Street, Phila. 4, Pa.

☐ Send more information on #401 Packing
☐ Send information on these other Teflon products _____

Name _____ Title _____
Company _____
Address _____
City _____ Zone ____ State _____

Please clip coupon to Company letterhead

For more details circle **NED-2256** on enclosed inquiry slip

CRANE LOAD SCALE
speeds positioning and weighing

Positioning and weighing of hoist loads is facilitated with this hydraulic Hydra-Set. Acting as a scale and load-weight actuated cylinder - and - piston link between the crane hook and the load, device is light in weight and can be handled by one man. Capacities range up to 20 tons. After load is positioned a few inches above desired location by craneman, rigger can lower the load gently and at any desired velocity by means of needle valve in the scale unit. This permits cylinder and piston unit to assume final load placement. Made by **Mefco Sales & Service Corp.,** Dept. C-1, 1509 Gardena Ave., Glendale, Calif.

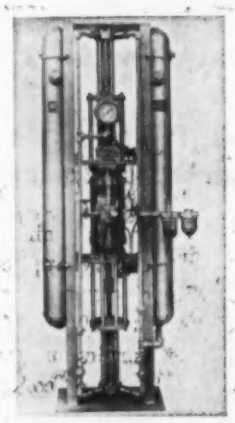
For more details circle **NED-2257** on enclosed inquiry slip

VISIBLE RECORD VIEWER
removes entire bank of cards

An entire bank of visible record cards can be removed from the file and kept in order with this Card Bank Remover. There is no possibility of cards becoming intermingled. This facilitates use of cards for statistical or analytical reasons. Made by **Vue-Fax Corp.,** Dept. N, 90 Gold St., New York 38, N. Y.

For more details circle **NED-2258** on enclosed inquiry slip

AIR-HYDRAULIC PUMPS
in vertical or horizontal makes



Built as complete package power units, series of heavy duty air-hydraulic pumps is designed to develop high fluid pressures from low pressure plant air supply. They are suitable for operation of high pressure cylinders, clamps, valves, actuators and hydraulic presses; for safety installation and high pressure testing; for hydraulic circuits requiring variable and adjustable pressure and volume; and for long pressure-holding cycles with quick approach without overheating or churning the hydraulic fluid. Units are available in horizontal construction for minimum head room, and vertical construction for minimum floor space. Made by **Ledeen Mfg. Co.,** 1602 San Pedro St., Los Angeles 15, Calif.

For more details circle **NED-2259** on enclosed inquiry slip

CAN YOU MATCH THESE SPEEDS FOR CUT-OFF TIME?

2" Steel Bar Stock.....15 Seconds
2" Steel Tubing, 3/32" Wall.....10 Seconds
2" Angle Iron, ⅛" thick, 45° Angle.....8 Seconds

If you can't match these records with present equipment, you owe it to yourself to investigate THE CINCINNATI Wet Abrasive Cut-Off Machine. Handles any metal; capacity up to 2¼" in solids, 3½" in tubing. Exclusive coolant nozzle insures proper flow for longer wheel life. Foot-operated vise frees operator's hands for greater efficiency.

Write today! Ask for name of your distributor or Bulletin 52 AD.

TRADE *The Cincinnati* MARK

THE CINCINNATI ELECTRICAL TOOL CO.
Division of THE R. K. LeBLOND MACHINE TOOL CO.
CINCINNATI 8, OHIO

For more details circle **NED-2260** on enclosed inquiry slip

...This is not a DINOSAUR

it's an **ALVEY PUSHER BAR ELEVATOR**

One of these machines will raise or lower rectangular or cylindrical packages, safely, on steep inclines. Widths, lengths and angularity to suit your requirements. Write Alvey today—

ALV-38 ALVEY Engineered PACKAGE CONVEYORS

Branch Offices in All Principal Cities

ALVEY CONVEYOR MFG. CO.
9259 Olive Street Road, St. Louis 24, Missouri

ALVEY

For more details circle **NED-2261** on enclosed inquiry slip

GALS. PER MINUTE
FEET PER HOUR
% SHRINKAGE

All measured electrically with

WESTON TACHOMETERS

Precise indications from ONE rotating shaft

Simply mount the compact a-c or d-c Weston generator at the rotating shaft or part, and wire to one or more indicators placed wherever desired. Indicators can be calibrated for any function of R.P.M. Speed changes indicated instantly and smoothly without pointer oscillation.

Speed-ratio from TWO rotating shafts

New WESTON Tachometer indicates the speed-ratio of 2 rotating shafts or parts. Indicates directly the speed-ratio of rolls, the % stretch or shrinkage of textiles, elongation of metals, etc. Remote and duplicate indications possible, with scale marked in desired units.

New SLOW-SPEED Electrical Tachometer

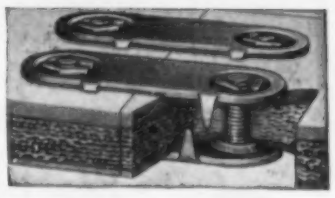
Expanded scale accurately indicates speeds as low as 1 R.P.M. without pointer oscillation. No intermediate gearing employed. Complete data from your local WESTON representative, or by writing Weston Electrical Instrument Corporation, 615 Frelinghuysen Avenue, Newark 5, New Jersey, manufacturers of Weston and TAGliabue instruments.

WESTON *Instruments*

For more details circle **NED-2262** on enclosed inquiry slip

FLEXCO® BELT FASTENERS and RIP PLATES

FOR HEAVY CONVEYOR AND ELEVATOR BELTS OF ANY WIDTH



Compression Grip distributes strain over whole plate area

- ★ FLEXCO Fasteners make tight butt joints of great strength and durability.
- ★ Trough naturally, operate smoothly through take-up pulleys.
- ★ Distribute pull or tension uniformly.
- ★ Made of Steel, Monel, Stainless, Everdur. Also Promal top plates.
- ★ FLEXCO Rip Plates are for bridging soft spots and FLEXCO Fasteners for patching or joining clean straight rips.

Order From Your Supply House. Ask for Bulletin F-100

FLEXIBLE STEEL LACING CO.
4664 Lexington St., Chicago 44, Ill.

▲ For more details circle NED-2263 on enclosed inquiry slip ▲

SYNTHETIC SAPPHIRE *for*

Resistance to Wear
Outlasting hardened steel and cemented carbides up to 5,000 times.

Resistance to Friction
Affording very low friction characteristics due to hardness and surface continuity.

Resistance to Heat Distortion
Retention of form at temperatures up to 1,000° C.

Retention of Insulating Properties
Excellent dielectric properties over a wide range of temperatures.

Synthetic Sapphire can be polished by flame or diamond polishing; it can be formed and bent by flame. Polished sapphire surfaces keep free of dirt, lint, and in many anti-friction applications, need not be lubricated.

Call or write the LINDE office nearest you for a copy of the booklet, "LINDE Synthetic Crystals For Industry". Ask for Form 7560.

LINDE AIR PRODUCTS COMPANY
A DIVISION OF UNION CARBIDE AND CARBON CORPORATION
30 East 42nd St., New York 17, N. Y. UCC Offices in Other Principal Cities
In Canada: DOMINION OXYGEN COMPANY, LIMITED, Toronto

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faster heat transfer for 50% of the cost

Stainless Steel Platecoils in a large variety of standard sizes or standard single embossed Platecoils rolled to specific diameters as shown above are finding increasing use in industry because they give five basic advantages in solving heat transfer problems. 1. Lower first cost. 2. Simplified and less costly installation. 3. Takes less space in tank. 4. Higher heat transfer rate. 5. No pipe joints in solution.

Send for complete technical manual and descriptive Bulletin No. P57.

PLATECOIL
KOLD-HOLD MFG. CO.
LANSING 4, MICHIGAN

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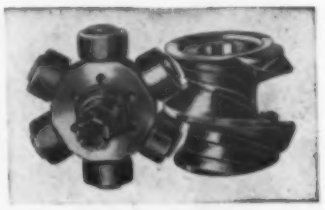
ROLLER GEAR DRIVE
designed for intermittent motion



Machinery in such applications as indexing dials, carriers, conveyors or feeding mechanisms can be speeded up through use of roller gear drive, a device for obtaining intermittent motion. Drives are designed for 8000 operating-hours without maintenance, after which units can be renewed merely by replacement of standard ball bearings. Gears move over cam rib smoothly, and gear drive locks without timer loss or shock. Drives are available for right or left hand rotation in any number of stops from two to infinity. Indexing speed ranges up to 800 per minute or 48,000 per hour at an indexing period from less than 90 degrees to more than 270 degrees of driving shaft. Made by **Ferguson Machine & Tool Co.,** Roller Gear Div., Dept. 101, 471 Paul Ave., Ferguson Station, St. Louis 21, Mo.

▲ For more details circle NED-2266 on enclosed inquiry slip ▲

PORTABLE ROUTER
uses assorted bits and cutters and is available in two models

Wide variety of cuts for grooving, veining, shaping, molding, coving, rabbeting, dadoing, etc. can be performed by the Speedmatic portable electric routers. Cam-lock chuck eliminates chatter and kick by assuring bit concentricity and simplifies insertion of bits and cutters. Model 511 router is rated at 8 amp, idles at 22,000 rpm and weighs 8¾ lb. Heavy duty model 514 is rated at 12 amp, idles at 20,000 rpm and weighs 18 lb. Depth dial enables the operator to dial the required cutting depth.

Available accessories include stair templet for routing step stringers, paneling gage for removing old wooden panels or putty from doors and windows and hinge butt templet. Power unit from model 511 can be interchanged with other devices for conversion into a plane, cutter sharpener or lock mortiser. Made by **Porter-Cable Machine Co.,** Dept. PR-6, 1710 N. Salina St., Syracuse 8, N. Y.

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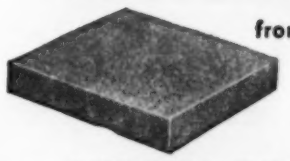
Armstrong's

VIBRACORK CUSHIONS VIBRATION



from Hydraulic Presses, Pumps, Compressors, and many other types of Machinery and Equipment

. . . ACTUALLY FLOATS THE LOAD ON MILLIONS OF AIR CELLS!

Vibracork is a resilient machinery isolation cork plate made of pure cork granules, compressed and baked under pressure.

Convenient to stock — Standard sheets, 12" x 36"; Standard density 2" and 3" thick; Heavy density, 1", 2" and 3" thick.

Easy to use — Can be cut to size on the job with an ordinary hand saw.

Loading range — Standard density, 1500# to 4000# per. sq. ft.; Heavy density, 5700# to 8500# per. sq. ft.

Availability — Immediate delivery. Korfund is sole distributor for the United States.

For installation data and further information, ask for Bulletin VC-500.

THE KORFUND CO., INC.

KORFUND VIBRATION CONTROL — SPRINGS — RUBBER — CORK

48-35P Thirty Second Place • Long Island City 1, N. Y.
See us at the Plant Maintenance Show Cleveland. January 19-22. Booth #610.

▲ For more details circle NED-2268 on enclosed inquiry slip ▲

STANDARDIZE ON STANDARD HALLOWELL® POSTURE STOOLS AND CHAIRS

Look at these FEATURES:
- Posture back rests, interchangeable and adjustable
- Spring steel back bars for proper posture
- Seats dished for comfort, plain or Presdwood-covered
- Angle braces and angle legs for strength and rigidity

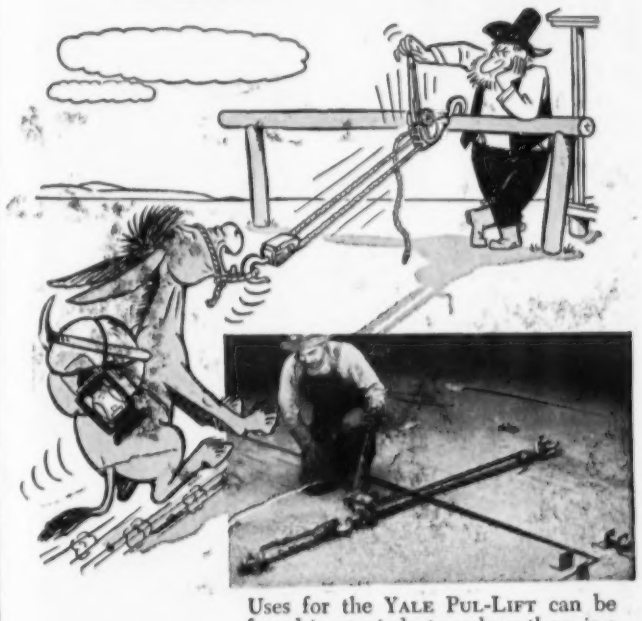
designed for comfort while working

This and other HALLOWELL Posture Stools and Chairs are described in Bulletin 704. Write for your copy. STANDARD PRESSED STEEL Co., Jenkintown 24, Pennsylvania.

HALLOWELL SHOP EQUIPMENT DIVISION SPS JENKINTOWN PENNSYLVANIA

▲ For more details circle NED-2269 on enclosed inquiry slip ▲

There's a YALE hoist for every lifting need!



Uses for the YALE PUL-LIFT can be found in any industry where there is a necessity for low-cost pulling or lifting.

Industries of all types solve difficult *lifting* and *pulling* problems with the light-weight YALE PUL-LIFT. Universal ratchet action makes it easy to use . . . exclusive YALE design provides capacities up to 15 tons. Yes, your business can realize important savings in time, money and manpower by applying the YALE PUL-LIFT to countless maintenance and construction operations. CALL YOUR LOCAL YALE INDUSTRIAL DISTRIBUTOR FOR COMPLETE INFORMATION . . . he's listed in the classified pages of your local phone directory under the heading Hoists, Industrial.

YALE is a registered trade mark of The Yale & Towne Mfg. Co.

The Yale & Towne Manufacturing Co., Phila. 15, Pa.

YALE PUL-LIFTS

SOLD THROUGH INDUSTRIAL DISTRIBUTORS

MAIL THIS COUPON TODAY

The YALE & TOWNE Mfg. Co., Dept. 3711
Roosevelt Blvd. & Haldeman Ave., Philadelphia 15, Pa.
I'm interested in lifting for less with a YALE Hoist.
☐ Please have your local Hoist Distributor call on me.
Please send detailed literature on:
☐ YALE Pul-Lifts. ☐ YALE Hand Hoists. ☐ YALE Electric Hoists.
Company_____
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Street_____ City_____ State_____
In Canada write: The Yale & Towne Manufacturing Company Box 337—Postal Station "A"—Toronto

Gas and Electric Industrial Trucks • Worksavers Hand Trucks • Hand and Electric Hoists • Pul-Lifts

▲ For more details circle NED-2270 on enclosed inquiry slip ▲

Wolverine

Heavy Duty QUICK ACTION TOGGLE CLAMPS

Extra CLEARANCE
Extra SPEED

Rugged construction—drop forgings, cast steel and solid bar stock.

• • •

Wolverine Toggle Clamps also available in several types and sizes of Standard Action and Push Action units.

• • •

Wolverine Clamps are in use in almost every major industrial field and are specified by prominent engineering firms. Write for Bulletin.

WOLVERINE TOOL CO.
1482 E. WOODBRIDGE
DETROIT 7, MICHIGAN

▲ For more details circle NED-2282 on enclosed inquiry slip ▲

SOLID... as a rod
FLEXIBLE... as a wire rope

TRU-LAY Push-Pulls snake around obstructions. Provide positive remote action for operating clutches, gates, slides, etc. Operate while flexing. Weatherproof, dustproof types. Capacities up to 1000 pounds input.

Write our Detroit office today for DH-287

TRU-LAY PUSH-PULL CONTROLS

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AUTOMOTIVE AND AIRCRAFT DIVISION
AMERICAN CHAIN & CABLE
601 Stephenson Bldg., Detroit 2
2475 Porter St., Los Angeles 21 • Bridgeport, Conn.

▲ For more details circle NED-2283 on enclosed inquiry slip ▲

PANEL INDICATOR LIGHT is miniature aircraft-type

Only $1\frac{5}{16}$ in. long from terminal tip to indicator lens, and weighing about ¼-oz, miniature aircraft-type L1000 panel indicator light features terminal rigidly molded in place. Removable plastic lens is available in amber, blue, green, red or white and is held by rubber O-ring which also serves as moisture seal. Standard 6, 12 or 28-v No. 327 lamp is used. Assembled in nickel-plated brass case, light has removable bushings, spacers and ground terminals for grounded or nongrounded panel mounting. Flange-type panel mounting requires $\frac{13}{32}$-in. hole. Made by **Hetherington, Inc.**, Dept. D, Sharon Hill, Pa.

▲ For more details circle NED-2284 on enclosed inquiry slip ▲

RUBBER-BASE PAINT for application on concrete floors

Protection of concrete floors against traffic wear, moisture, chemicals and cleaning compound attacks can be provided by Floorkote rubber-base enamel. It can be applied equally well to old or uncured new concrete, basement floors and to floors laid direct on ground over a cinder fill. Drying in 4 hours to a rich gloss, it seals the floor and does not react to soaps, cleaning compounds, or alkalies present in the concrete. Made by **Tropical Paint & Oil Co.**, 1150-1300 W. 70th St., Cleveland 2, O.

▲ For more details circle NED-2285 on enclosed inquiry slip ▲

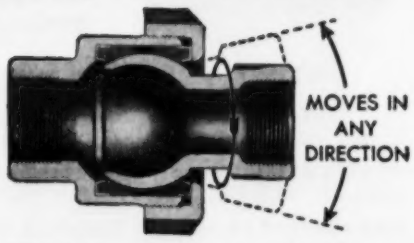
ELECTRIC FORK TRUCK makes U-turn in 8½-ft aisle

Rated for loads up to 2500 lb and 48 in. long, the FS-25 electric fork truck travels at speeds up to 7 mph and can U-turn in 8½-ft aisle. Features include a worm gear driven power axle, "gyroscopic" trailing axle mounted in rubber blocks which cushion twists and bumps to protect truck loads and dynamic braking which brings the truck to a smooth stop before it can be reversed. Standard telescoping lift is 130½ in., overall length is 119 in., width is 34 in. and wheelbase is 38 in. Made by **Baker-Raulang Co.**, Baker Industrial Truck Div., 1245 W. 80th St., Cleveland 2, O.

▲ For more details circle NED-2286 on enclosed inquiry slip ▲

BARCO Flexible BALL JOINTS

—when you need movable joints in piping handling



STEAM, OIL, CHEMICALS

Send for New Bulletin No. 215

- Provides for movement in piping—up to 40° side flexibility, plus 360° rotating movement.
- Stainless steel and chemically inert gaskets for strong chemicals. No metal-to-metal contact. Choice of body materials.
- One Barco Ball Joint does the work of two or more ordinary swivel joints because "it moves in any direction!"
- Many models available. For pressures to 7,500 psi; temperatures to 1000° F. 15 different sizes, ¼" to 12". *Ask for recommendations.* BARCO MFG. CO., 1830M Winnemac Ave., Chicago 40, Ill.

THE ONLY TRULY COMPLETE LINE OF FLEXIBLE BALL, SWIVEL, SWING AND REVOLVING JOINTS

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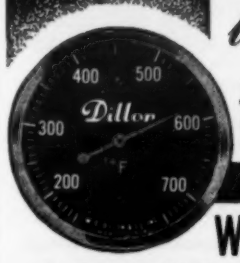
FOR ACCURACY

PRECISION DILLON THERMOMETERS OFFER THE FINEST IN SCIENTIFIC HEAT CONTROL

These carefully engineered instruments can be screwed into tanks, boilers, kettles, stacks, pipes, etc. Come in STANDARD stem lengths of 5" or 9" with special INTERMEDIATE lengths up to 80". Dials are 1", 2¼", 3" or 5" dia. as desired. Made of acid-resisting stainless steel. Numerous ranges from as low as 0-200° F. up to 200-1000° F. Also available in Centigrade ranges. DILLON engineers will be glad to adapt this unit to YOUR product if you are an O.E.M. Thousands in use. Write for illustrated brochure and prices.



the DILLON dial STAINLESS STEEL thermometer

W. C. DILLON & CO. 14620 NE Keswick St. Van Nuys, California (Suburb of Los Angeles)

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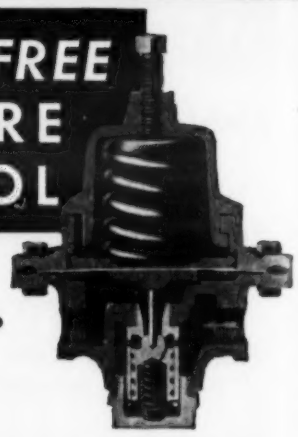
TROUBLE-FREE PRESSURE CONTROL



FOR heaters • steam kettles • presses • sterilizers • vulcanizers

THE DAVIS NO. 13 PRESSURE REGULATOR

A pressure regulator with all the features needed for excellent regulation of small equipment such as unit heaters, presses, sterilizers, and other devices. The No. 13 regulator will give dependable, accurate service over long periods of operation. Just install it and forget it! No maintenance headaches. Write today for recommendations and your copy of Davis Pressure Regulator Bulletin 101-A.

- BUILT-IN STRAINER
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- NON-STICKING
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- PRESSURES TO 250 PSI
- REDUCED PRESSURES FROM 1 TO 100 PSI
- BRONZE, OR SEMI-STEEL BODY
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DAVIS REGULATOR COMPANY
2531 South Washtenaw • Chicago 8, Illinois

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NEW—72 pages crammed with THOUSANDS of newest PHOTO TOOLS, CAMERAS, LENSES, PROJECTORS, Lighting Equipment, Developing Equipment, ENLARGERS, etc. for the amateur and professional, in every day SCIENTIFIC and INDUSTRIAL work.

CAMERAS	Commercial — Recording — Identification — Special Purpose —Polaroid Land Back—Laboratory — Photomicrography — etc.
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1000 PLANT EXECUTIVES

TO TEST THIS PLASTIC ENVELOPE FREE Worth 26c

Test this FREE Job Ticket Envelope in your plant. See how production records, job orders, charts, etc. stay crisp and clean despite constant handling. Now, you can eliminate doubts, errors and wasted time due to blurred, grease-stained figures. Send for circular #B-2, which illustrates the many practical uses for these rugged envelopes . . . not only on the production end, but in the office as well.

AMERICAN KLEER-VU PLASTICS, INC.
57 Thames St. Brooklyn 37, N. Y.

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slashes coal handling costs!

Here's a brand *new* Farquhar Portable Conveyor with *exclusive* features *especially designed to save you time and money* in your coal handling operation. Heavy plate construction, channel iron wheel truck, closer tolerances—all give you greater strength with less weight! Bolted construction makes for easy repairs! Top-quality belting, improved pulley construction, deeper, wider return dust pan assures longer belt life! Moving parts feature ball bearings! Either chain and sprocket or V-belt drive!

Farquhar CONVEYORS SAVE YOU MONEY

FREE — "Owners Report" booklet containing case histories of money-saving Farquhar Conveyor installations. Write: **A. B. FARQUHAR CO., *Conveyor Dept. N-04,* 142 N. Duke St., York, Pa., or 618 W. Elm St., Chicago 10, Ill.**

A. B. FARQUHAR COMPANY Division of THE OLIVER CORPORATION

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★ POWER RELAYS
★ SMALL RELAYS
★ SENSITIVE RELAYS
★ LATCH RELAYS
★ INSTRUMENT-CONTROLLED RELAYS and SETS
★ SEQUENCE RELAYS
★ TIMING UNITS
★ SPECIAL-PURPOSE RELAYS

5,348
RELAY TYPES

...mean that you get exactly the right relay for the job!

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Struthers-Dunn, Inc., 150 N. 13th St., Phila. 7, Pa.

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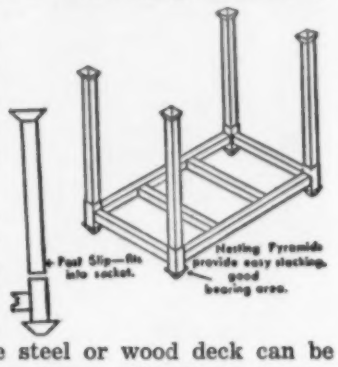
STEEL UNIT RACK
for items to be stored or tiered

Practical for heavy duty storage and tiering of steel parts, coils, motors, tile flooring and other items is this Pyramid all steel unit rack. Self-aligning nesting cones for quick, safe stacking of unit loads one on top of the other is featured. Slip - fit square tubular vertical supports are available with special framing to suit user requirements. Dimensional load restrictions are negligible since rack is designed for each particular use.



Specially designed frame steel or wood deck can be furnished. Made by **Paltier Corp.,** 1701 Kentucky St., Michigan City, Ind.

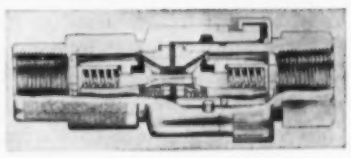
▲ For more details circle **NED-2294** on enclosed inquiry slip ▲

MAGNETIC SWEEPER
operates like carpet sweeper

An alnico V magnetic tube mounted between two neoprene wheels comprises this magnetic floor sweeper, operated like a carpet sweeper. It picks up tacks, nails, nuts, screws and other pieces of ferrous metal in its path. Moving a wiping ring from one end of the tube to the other removes the metal. Use can be on factory floors, dock areas and parking lots. Made by **Eriez Mfg. Co.,** 1325 E. Twelfth St., Erie, Pa.

▲ For more details circle **NED-2295** on enclosed inquiry slip ▲

SHUT-OFF COUPLER
for pneumatic or hydraulic service



Made originally for ammonia or Freon refrigerant service, make-and-break double shut-off valve coupler is also suitable for industrial pneumatic or hydraulic lines. As the two halves of unit are coupled, two piston valves open, and coupler alignment is assured by long guides. When disconnected, both lines are sealed without loss of liquid or gas. Protector caps cover coupler halves when they are disconnected. Units are offered with ½-in. female pipe thread connections. Made by **Henry Valve Co.,** Dept. NED, 3515 North Ave., Melrose Park, Ill.

▲ For more details circle **NED-2296** on enclosed inquiry slip ▲

LOW COST POWER TRANSMISSION

***Line-O-Power Drives*—Straight line and right angle (horizontal and vertical) units. Vertical available for extended output shafts.**

***Foote Bros.-Louis Allis Gearmotors*—17 sizes with output speeds from 7.5 to 780 r.p.m. and capacities of 1 to 150 h.p.**

***Maxi-Power Helical Gear Drives*—42 sizes available in this heavy-duty line. Ratios 2.08 up to 360 to 1, capacities up to 1550 h.p.**

***Hygrade Worm Gear Drives*—Horizontal and vertical types. Hytop vertical accommodates long, unsupported output shafts.**

WRITE FOR BULLETINS
LPB—*Line-O-Power Drives*
GMA—*Foote Bros.-Louis Allis Gearmotors*
HGB—*Hygrade Worm Gear Drives*
MPB—*Maxi-Power Helical Gear Drives*

FOOTE BROS.
Better Power Transmission Through Better Gears
FOOTE BROS. GEAR AND MACHINE CORPORATION
4545 S. WESTERN BOULEVARD, CHICAGO 9, ILLINOIS

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In Connecticut

HARTZELL INGENUITY
EARNS A REPEAT ORDER

Automobile antenna motors burned out far too often on the test stand, because of lack of ventilation. That was the problem a Connecticut manufacturer tossed in the lap of a Hartzell field engineer. The Hartzell solution was a series of 4-inch ducts, one to each of 40 test stations, fed from a single duct powered by a Hartzell vaneaxial blower (VA21-BD). And how well did this solution work? *The plant operator plans a duplicate installation.* If something in the air is causing trouble, costing money, don't put up with it. Hartzell can knock it cold. Call your nearby Hartzell field man now, or get in touch with us.

HARTZELL PROPELLER FAN CO.
DEPT. G DIV. OF CASTLE HILLS CORP. **PIQUA, OHIO**
engineering representatives in principal cities

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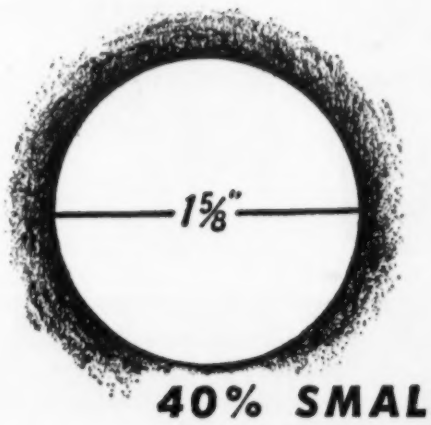
YOU NEED ONLY THIS SIZE SPACE FOR STERLING INDICATING METERS



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THAN FORMER MODELS

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Send for a Sterling catalog today — a complete line of meters for the electronic and automotive field.

STERLING
MANUFACTURING COMPANY
7201 WENTWORTH AVE.
CLEVELAND, OHIO

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NOW . . . A COMPLETE FLOOR PATCH KIT!

EVERYTHING YOU NEED FOR REPAIRING
Concrete or Asphalt Surfaces

- FLOORS
- TRUCKING AISLES
- LOADING DOCKS
- SIDEWALKS
- DRIVEWAYS

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COMPACT! COMPLETE!

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Bitucote PRODUCTS Div. of BRIDGES PAVING CO.
1411 CENTRAL INDUSTRIAL DRIVE • ST. LOUIS 10, MO.

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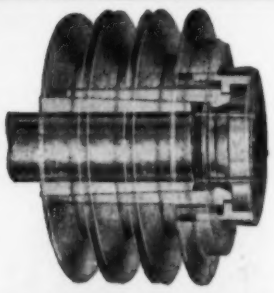
▲ For more details circle NED-2301 on enclosed inquiry slip ▲

WHAT DO YOU KNOW

About Speed Control For Profit?



1. Do you know the exact speeds at which your machines should operate to give you maximum profit?

2. Do you know that the difference between the right speed and almost the right speed is frequently the difference between profit and loss?

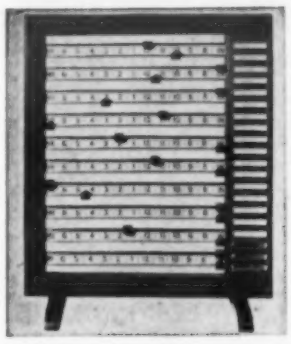
3. Do you know that American Adjustable-Speed Sheaves can give you stepless speed control to meet variations in operating conditions and operator efficiency?

4. Want the answers to these and other questions? Then fill in and mail the coupon below today and we'll send you a Free Bulletin with the right answers. Do it now.

THE AMERICAN PULLEY COMPANY
4294 Wissahickon Ave., Philadelphia 29, Pennsylvania
Gentlemen:
Quick! Rush me your complete bulletin on The AMERICAN Adjustable-Speed Line.
Name _____
Address _____
City _____ Zone _____ State _____

▲ For more details circle NED-2302 on enclosed inquiry slip ▲

IN-OUT REGISTER
two series accommodate from 6 to 40 persons

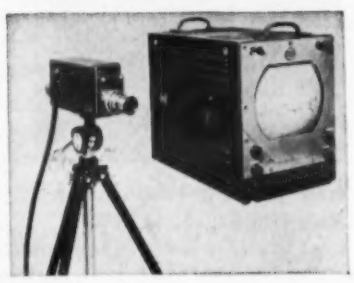


Problem of knowing whether personnel are in or out can be solved through the use of the Contro'all in-out register, offered in several models. The SS series is made in models for 6 to 40 names. Red plastic indicators show whether persons are in, expected time of return if temporarily out, or not returning. Time ranges are 8 am to 6 pm and 8 am to 9 pm.

The DF series, made with the same times and in models for 6 to 20 persons, has three indicators per person. Additional two blue indicators bracket the "in" time. Special registers are available for control of sales, service, production, purchasing, personnel, dispatching, etc. Single and double-faced models, for wall or table mounting, are offered in walnut or maple. Available from **Christie Sales Co.**, Dept. NED, 1298 Winston Rd., Cleveland 21, O.

▲ For more details circle NED-2303 on enclosed inquiry slip ▲

INDUSTRIAL TELEVISION SYSTEM
two-unit chain is self-contained, operates on 115-v, 60-cycle power



Maximum simplicity, compactness, ease of operation and good picture quality are featured by model 1TV-5 closed-circuit industrial television system designed to maintain continuous visual checks on operations too remote, or hazardous for human observation. Equipment consists of 10½ x 5 x 3½-in. camera which uses standard 16-mm motion picture camera lenses with a C-type mount, and a combination monitor, power supply and control unit housed in compact portable case.

Camera contains only three tubes, one of which is the Vidicon photoconductive camera tube with sensitivity comparable to studio-type Orthicon tube. Picture is transmitted to monitor's 10-in. screen over 18-conductor camera cable. All controls for operation are contained in monitor-power supply unit, and once set up, adjustments can be made with only two knobs. Scanning frequencies are the same as those of standard broadcast TV.

Equipment can also be operated with microwave transmission from camera to receiver over extended distances. Operation is on 115-v, 60-cycle power supply. Made by **Radio Corp. of America**, RCA Victor Div., Engineering Products Dept., Camden, N. J.

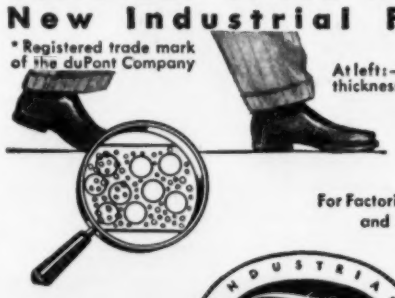
▲ For more details circle NED-2304 on enclosed inquiry slip ▲

NEW! fulltred®

Floor Wax with Ludox*

Slipping Retarded with Ludox* Colloidal Silica in FULLER'S New Industrial Floor Wax

*Registered trade mark of the duPont Company



At left:—Wax film of approx. .0001" thickness, magnified 200,000 times to show how your feet press "Ludox" spheres into the larger wax particles.

For Factories, Institutions and Buildings

INDUSTRIAL Fuller BRUSH CO. DIV.

3530 MAIN STREET HARTFORD 2, CONN.

Fullergript, Wet and Dry Mops, Brooms, Floor and Special Brushes.

▲ For more details circle NED-2305 on enclosed inquiry slip ▲

BENEFIT 3 WAYS

by putting machinery on vibration absorbing

ISOMODE® PADS

1. EASIER, FASTER MACHINE INSTALLATION Isomode Pads work on any type of flooring. No need to bolt to or damage floor. Simply cut the required area of Pad and place under base or legs of equipment.

2. QUIETER PLANT . . . Absorbing impact and vibration—even that of high capacity punch presses — Isomode Pads can help you reduce noise levels, increase comfort.

3. LESS MACHINE MAINTENANCE . . . There's less stress and strain on machines when they're flexibly mounted. You thereby save maintenance time and labor, help equipment last longer.

Made of DuPont Neoprene, the Pads resist oil, water, aging. Get more details.

THE MB MANUFACTURING COMPANY, INC.
1066 State Street, New Haven 11, Conn.

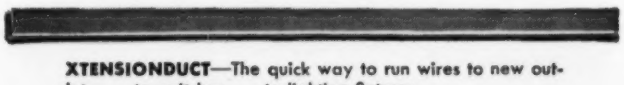
▲ For more details circle NED-2306 on enclosed inquiry slip ▲

Put Wiring Anywhere SAFELY

with NE RACEWAYS

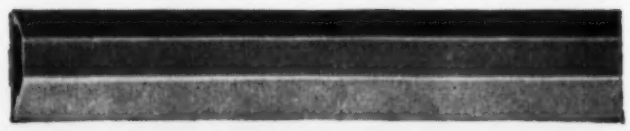
Where do you need a wire? Across the ceiling . . . down the wall . . . over the floor? Put it there! It's so easy with NE all-metal Surface Raceways. Simply attach the base, lay-in the wires, snap on the capping. No fishing necessary.

Neat, strong, safe and permanent, NE Surface Raceways are inter-connectable to serve every electrical application of 15 to 60 ampere loads. Easy to install . . . easy to change. For offices, stores, institutions and industrial buildings.



XTENSIONDUCT—The quick way to run wires to new outlets . . . to switches . . . to lighting fixtures.

METAL MOLDING—Carries up to 10 conductors. Bends around offsets and columns.



FLORDUCT—For telephone, power and light. Will withstand truck abuse . . . bump-proof . . . mop-proof.

SURFACEDUCT—A complete wiring system providing all types of service up to 60 amperes.

Listed by Underwriters' Laboratories, Inc.
Write for complete details.

EVERYTHING IN WIRING POINTS TO

National Electric Products
PITTSBURGH, PA.
3 Plants . 6 Warehouses . 42 Sales Offices

▲ For more details circle NED-2307 on enclosed inquiry slip ▲

Here's LOW COST OVERLOAD PROTECTION!

CONSIDERING THE OVERALL ECONOMY, it's hard to beat the *Thermalite* overload indicator, introduced by Allis-Chalmers. Low in original price and costing next to nothing to maintain, it can save you hundreds of man-hours on extensive surveys. It'll help eliminate service interruptions and transformer burnouts.

You'll find it makes overload detection easy, too. You can spot the warning light right from your service truck.

Now available on distribution transformers 100 kva and smaller, 15 kv and below. For more information see your A-C district office. Or write Allis-Chalmers, Milwaukee 1, Wisconsin.

A-3848

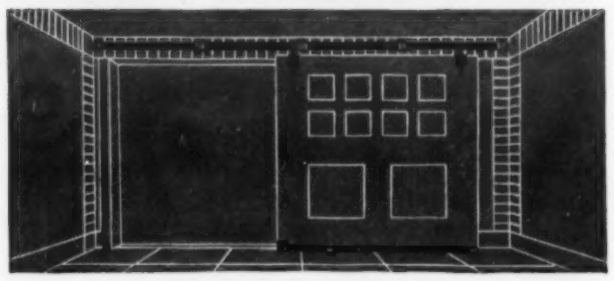
Thermalite is an Allis-Chalmers trademark.

ALLIS-CHALMERS

For more details circle NED-2308 on enclosed inquiry slip

COBURN

SLIDING DOOR HARDWARE



- . . . LOW INSTALLATION COST
- . . . SMOOTH, EASY OPERATION
- . . . LONG, TROUBLE-FREE LIFE
- . . . ADAPTABLE FOR BOTH NEW AND REMODELING JOBS

Sliding door hardware for industrial applications of all types: Straight-sliding, sliding-folding, around-the-corner, roundhouse and fire doors.

For additional information write to Sales & Engineering, 56 Sterling St., Clinton, Mass. or consult your classified telephone directory.

THE COLORADO FUEL & IRON CORPORATION—Denver, Colorado
THE CALIFORNIA WIRE CLOTH CORPORATION—Oakland, California
WICKWIRE SPENCER STEEL DIVISION—Clinton, Massachusetts

COBURN PRODUCTS
PRODUCT OF WICKWIRE SPENCER STEEL DIVISION
THE COLORADO FUEL & IRON CORPORATION

For more details circle NED-2309 on enclosed inquiry slip

MICO ENGRAVERS

An accurate, inexpensive and portable machine for engraving name plates and panels, forming small molds and dies, and profiling small parts. Geometrically correct for true three dimensional work. Accurately duplicates master copy in metals, plastics or wood. Rugged, sturdy construction.

COMPARE THESE SUPERIOR FEATURES

- Engraves in 2 or in 3 dimensions
- Pantograph permits 4 reduction ratios
- Micrometer depth control graduated in thousandths of an inch
- High speed, ball bearing spindle
- Chuck 1/8" to take variety of small tools, burrs, mounted points, as well as standard cutters.

Send for Illustrated Catalog

MICO INSTRUMENT COMPANY
80D Trowbridge St. Cambridge, Mass.

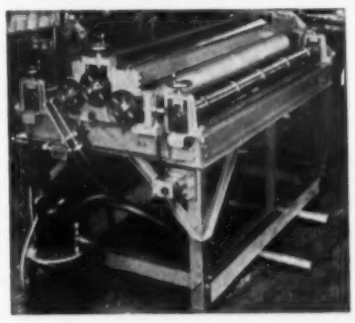
For more details circle NED-2310 on enclosed inquiry slip

MINIATURE SOLDERLESS TERMINALS usable on stranded or solid wire

Made for wire sizes 26 to 22, Ampli-Mite solderless terminals and connectors are practical for use in miniaturization of electronic circuits. Tests reveal them to be strong, vibration-resistant and free of RF noise. Special confined crimp allows their use on stranded or solid wire. Available in variety of tongue shapes, terminals are preinsulated or noninsulated, with or without insulation support sleeves. Insulated types have yellow polyvinyl plastic sleeves. Quick permanent splices which can be inspected at a glance can be made for telephone and small gage wiring with connectors having clear polyvinyl insulation. Made by **Aircraft-Marine Products, Inc.,** 2100 Paxton St., Harrisburg, Pa.

For more details circle NED-2311 on enclosed inquiry slip

METAL SHEET PRINTER will imprint up to 500 fpm with quick drying aniline ink



The complete surface of any metal sheet from 0.01 to 1.5 in. thick and up to 72 in. long can be imprinted by this Auto-Printer at speeds up to 500 fpm. Machine uses a quick drying aniline ink of any color desired. Aluminum printing drum is 72 in. wide by 22-in. circumference and is covered with rubber mat so that entire surface can be covered with type, rubber dies or logotypes. Pinch rollers at infeed and eject end of machine pass sheet beneath printing system to oiling machine.

A single hand wheel adjusts 900-lb pivoted printing system for different thicknesses of metal. Sheets are supported across width of machine by idler rollers to prevent sagging. Ink recirculating pump and solvent replacing device are standard. Machine is built of 6-in. channel structural angle frame and black iron castings, measures 4 x 7½ x 4½ ft and carries ¾-hp variable speed motor to synchronize with the surface speed of sheet. Made by **Industrial Marking Equipment Co.,** Dept. NED, 454 Baltic St., Brooklyn 17, N. Y.

For more details circle NED-2312 on enclosed inquiry slip

Asbestos Gloves for HOT Jobs

Handle hot things with Safety. Wear Industrial's famous No. 200-14 asbestos gloves. • Made of close woven 2½ lb. per square yard Underwriters Grade asbestos cloth that resists burning. Big, roomy cut; airy and comfortable. All seams double stitched. One-piece construction from tip to top with no seams at wrist or wearing edges to burn or pull out. Made lined or unlined. Many styles of gloves and mittens, both plain and leather reinforced. Over 40 years experience in designing and manufacturing a complete line of dependable Safety Apparel. Write for free catalog.

To be sure of the Genuine
Steel-Grip INDUSTRIAL Safety Apparel
Demand this Trade Mark

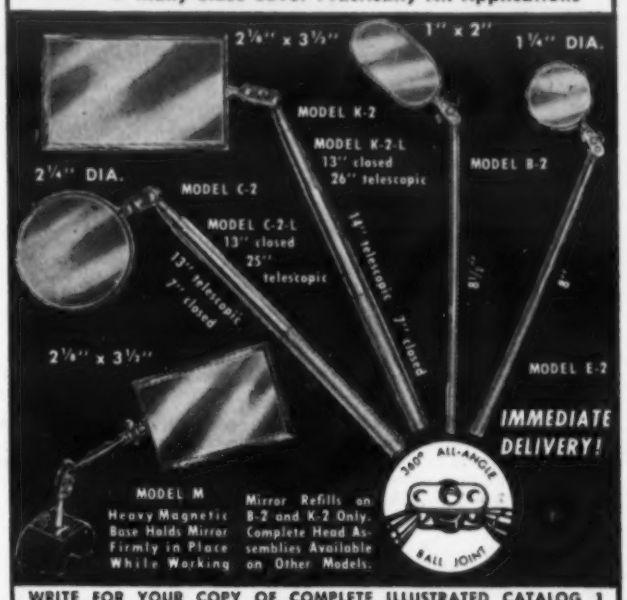
INDUSTRIAL GLOVES COMPANY
A Corporation
1522 Garfield Street, Danville, Illinois
(In Canada: Safety Supply Company, Toronto)

For more details circle NED-2313 on enclosed inquiry slip

WORK INSPECTION MIRRORS

speed production • prevent accidents

- Exclusive All-Angle Ball Joints
- Precision Engineered
- Replaceable Copper-Backed Clear View Mirrors
- Folds and Fits into Pocket
- Many Sizes Cover Practically All Applications



WRITE FOR YOUR COPY OF COMPLETE ILLUSTRATED CATALOG 1

ULLMAN PRODUCTS CORPORATION
156 PROSPECT AVE., BROOKLYN 15, N. Y.

For more details circle NED-2314 on enclosed inquiry slip

New Speed and Versatility in drawing reproduction

...with Kodagraph Autopositive Paper

SEE HOW the Solvay Process Division, Allied Chemical & Dye Corp., uses this revolutionary paper which produces positive photographic intermediates *directly;* which can be handled in room light . . . exposed in Solvay's blueprint machine . . . processed in standard photographic solutions.

- **To increase protection.** Autopositive reproductions are made of drawings which would otherwise be exposed to wear and tear. These intermediates—with dense photographic black lines—produce sharp blueprints—even after hundreds of printings.
- **To provide photo-lasting files.** Autopositive intermediates, which have the lasting qualities of photographs, serve as the Home Office file record of all drawings forwarded to Solvay's Alkali plants in Syracuse, Detroit, Baton Rouge.
- **To eliminate costly redrafting.** Autopositive paper reclaims old, soiled drawings . . . cleans up backgrounds . . . intensifies line detail . . . produces "new quality" printmaking masters.
- **To expedite contracts.** Autopositive intermediates are sent to outside bidders so that the required number of extra prints needed for quotations can be made without delay.
- **To prepare plant reports quickly.** Autopositive intermediates are used as the "masters" to produce the required number of direct-process prints; revisions and additions can be easily made . . . and the basic form used over and over again.

Write for a free copy of "New Short Cuts and Savings," which gives typical examples of the way Kodagraph Autopositive Paper is saving time and dollars in thousands of drafting rooms.

EASTMAN KODAK COMPANY
Industrial Photographic Division
Rochester 4, N. Y.

Kodak

For more details circle NED-2315 on enclosed inquiry slip

• TOOL CRIBS • STOCK ROOMS • MACHINE SHOPS

Saves Time hunting through stacks of packaged drills. Compartments hold a gross of small sizes—a dozen or more of the larger ones. Raised letters on easy sliding drawers . . . hammerlin gray baked enamel finish . . . 14½"x7¼"x7¼".

Write for Circular — Model No. 1: Fractional drills 1/16" to ½" Model No. 2: Number drills 1 to 60 Model No. 3: Letter drills A to Z

HUOT MFG. CO. 571 NORTH WHEELER ST. PAUL 5, MINNESOTA

Huot is pronounced "Hew-ot"

▲ For more details circle NED-2316 on enclosed inquiry slip ▲

NEWARK *Metallic* FILTER CLOTHS

Here are five different weaves of Newark Metallic Filter Cloths. All different in the arrangement of the strands; hence different also in their functioning.

Study the shape of the solids in your solution being filtered. That's just as important as the size, if you want clarity of filtrate. Then write us fully about the solids and we'll be glad to recommend the weave of the cloth that will "stop" them.

Many malleable metals are still available so, if necessary, we can probably supply you with a material that will also withstand highly corrosive conditions. When writing, also give solution characteristics.

All Newark Filter Cloths are woven in our own plant, on our own looms, by our own skilled weavers.

NEWARK for ACCURACY

Our entire line of Filter Cloths, Wire Mesh and Space Cloth, Sieves, "End-Shāk" Testing Units and other Newark Products are described fully in our new Catalog D. Send for a copy.

Newark Wire Cloth COMPANY

351 VERONA AVENUE • NEWARK 4, NEW JERSEY

Philadelphia 3, Penna. 4911 Widener Bldg. San Francisco, Calif. 3100 19th St. Chicago, Ill. 38 S. Wacker Dr. New Orleans, La. 520 Maritime Bldg. Los Angeles, Calif. 1400 So. Alameda St. Houston, Texas P. O. Box 1978

▲ For more details circle NED-2317 on enclosed inquiry slip ▲

SAFETY BOX protects accurately machined parts

Protection of accurately machined surfaces of crankshafts is assured by this safety box, built for handling by fork or lift trucks. Boxes, which can be equipped with crane lugs, can be stacked and have steel frames and braces and hardwood sides and bottoms. Bearing points on cross rails are faced with brass strips. Boxes are built to specification for handling any other type of shaft or forging work similar to crankshafts. Made by **Karl A. Herman Co.**, 333a W. Fulton St., Grand Rapids 5, Mich.

▲ For more details circle NED-2318 on enclosed inquiry slip ▲

PARTS CLEANING SYSTEM consists of pail, basket and cleaner

Practically any type of metal part can be cleaned of gum, carbon or dirt with this packaged Gumout 'n Basket kit which consists of 4-gal pail, lightweight metal dipping basket and Gumout cleaning material. Latter is nontoxic, fast acting and harmless to hands. Parts to be cleaned are placed in basket, immersed in cleaner briefly and then lifted out for draining. Developed by **Pennsylvania Refining Co.**, 2676 Lisbon Rd., Cleveland 4, O.

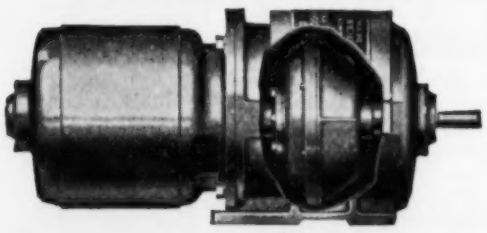
▲ For more details circle NED-2319 on enclosed inquiry slip ▲

PRESSURE INSTRUMENT GAGE checks controllers and indicators

Not only does 6-in. model P test gage serve in checking pressure controllers, recorders and indicators, but it furnishes an accurate standard for calibrating other pressure testing equipment. Gage is furnished in ranges of 0-30 in. mercury vacuum up to 0-10,000 psig and is accurate within ½ of 1 per cent of the total scale at any point throughout its range. Suitable tapered pipe male thread connections are provided. Measuring element, a full 270-degree Bourdon steel or beryllium copper spring, is housed in cast aluminum case. Pointer is micrometer-adjusted and set in easy-to-read dial. Leather carrying case with shoulder strap is optional. Made by **Foxboro Co.**, 26 Neponset Ave., Foxboro, Mass.

▲ For more details circle NED-2320 on enclosed inquiry slip ▲

American Blower TM Type GYROL FLUID DRIVES



GYROL FLUID DRIVES OFFER

- Benefits of lowest starting current, smoother acceleration, overload protection and shock absorption.
- Longer wear, better performance and lower maintenance costs for machines and motors.
- In many cases, less expensive control and simplified wiring.
- Complete packaged units, 1 thru 20 H.P., with standard NEMA mounting bolt hole dimensions.

Free trial units are available to original equipment manufacturers.

AMERICAN BLOWER

American Blower Corporation, Detroit 32, Michigan

Division of American Radiator & Standard Sanitary Corporation

Serving home and industry: AMERICAN-STANDARD • AMERICAN BLOWER • ACME CABINETS CHURCH SEATS • DETROIT LUBRICATOR • KEWANEE BOILERS • ROSS HEATER • TONAWANDA IRON

▲ For more details circle NED-2321 on enclosed inquiry slip ▲

SINGLE-ACTING Air-Clamp*

*Pneumatic Cylinders

Bore	STROKES Horizontal	Vertical
1"	⅝"	⅝"
2¼"	1"-2"-3"	1"-2"
3"		½"-2"
4"	2"-2½"	2"
5"	3"	3"
6"	3"	2"

NEW CATALOG READY! Complete line of simple adaptable, compact spring-return air cylinders. Cut costs and speed up production the modern, Air Power way. Write today.

MEAD SPECIALTIES COMPANY

4114 No. Knox Ave., Dept. N-112-A, Chicago 41, Ill.

▲ For more details circle NED-2322 on enclosed inquiry slip ▲

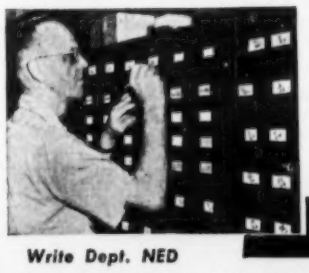
WON'T SMUDGE • RESISTS: DIRT GREASE WATER ACIDS

LABELON PLASTIC *Write on it* TAPE

STICKS WITHOUT MOISTENING

Nothing else like LABELON—the amazing "Write on it" plastic tape! Use it to label stockroom shelves, bins, tools, hard-to-mark parts; for indicating rejects and service department repairs; for marking laboratory equipment, supplies, experiments; for panel boards or wring; for office files, folders, etc.

For DEVELOPMENT MAINTENANCE STORAGE, OFFICE, ETC.



LABELON TAPE sticks without moistening to any smooth, clean surface—yet can be quickly removed. Resists heat up to 160°. Just write on it with pencil or stylus—message won't smudge. Choice of widths and colors. Handy dispenser with cutter bar. *See your nearest dealer, or write for sample and prices.*

LABELON TAPE CO., INC. 450 Atlantic Ave., Rochester 9, N. Y.

Write Dept. NED

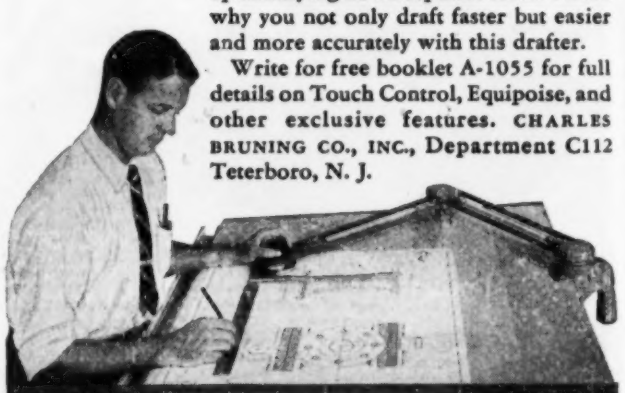
▲ For more details circle NED-2323 on enclosed inquiry slip ▲

DRAW 40% FASTER *with a Bruning Machine*

Tests prove you draft as much as 40% faster with a Bruning machine that combines your five basic instruments . . . T-square, straightedge, triangle, protractor, and scales . . . into one precision unit.

There are no waste motions of picking up and laying down separate tools. That's why you not only draft faster but easier and more accurately with this drafter.

Write for free booklet A-1055 for full details on Touch Control, Equipoise, and other exclusive features. CHARLES BRUNING CO., INC., Department C112 Teterboro, N. J.

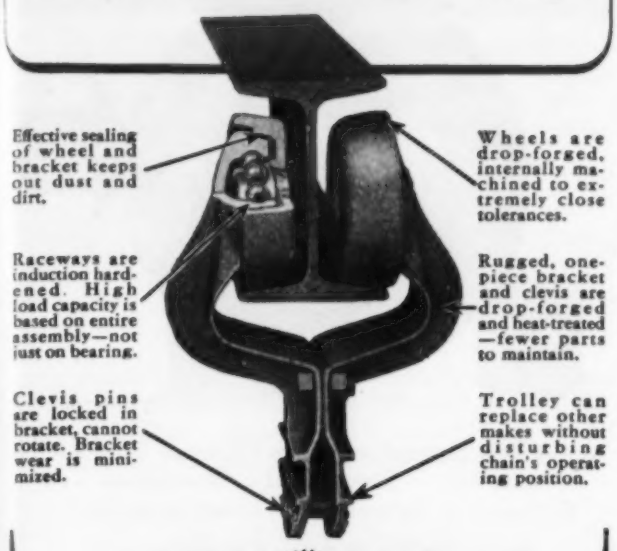


BRUNING

Everything for the Engineer and Draftsman

▲ For more details circle NED-2324 on enclosed inquiry slip ▲

Your conveyor dollars go farther with LINK-BELT trolleys



LINK-BELT

LINK-BELT COMPANY
Dept. 22, 307 N. Michigan Ave.
Chicago 1, Ill.
12,385

Write for Folder 2241-B.

▲ For more details circle NED-2325 on enclosed inquiry slip ▲

MACHINE DESIGNERS!

GET THE FULL STORY ON HANNIFIN'S

NEW *Pilot-Master* Air Control Valves!

HERE'S WHY MAINTENANCE MEN PREFER THEM...

FEWER VALVES TO STOCK
Use same valve 2-way or 3-way, normally open or normally closed.

FEWER PARTS TO STOCK
Unique cartridge construction makes "insides" easily replaceable.

INDUSTRIAL SOLENOIDS
Long-lasting, easy to change coils to any standard voltage.

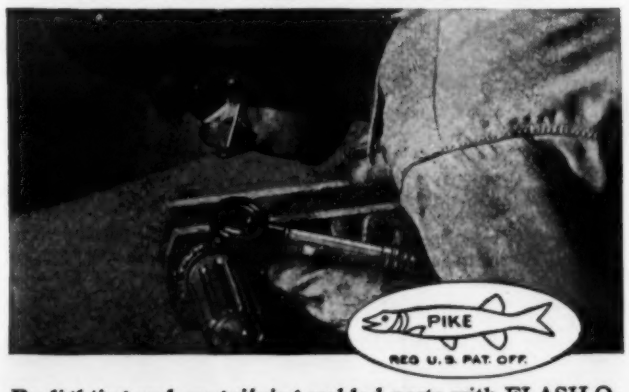
All Sizes From ¼" to 1¼" I.P.S.
Pressures From 15 to 150 P.S.I.
Write for Bulletin 231 and get the complete story!

HANNIFIN

Hannifin Corporation • 1127 S. Kilbourn Ave. • Chicago 24, Ill.

▲ For more details circle NED-2326 on enclosed inquiry slip ▲

Another FLASH-O-LENS at work ...checking soundness of welds at INTERNATIONAL HARVESTER



By *lighting* and *magnifying* welded parts with FLASH-O-LENS, International Harvester Company's Memphis Plant guards against the most minute cracks in the welds.

FLASH-O-LENS offers a quick, simple way of detecting defects—of maintaining product quality. Built-in bulb brightly illuminates the inspection area—accurately ground lenses give sharp, detailed enlargement.

Battery and plug-in models from $10.65. Write for free literature on applications, types, prices.

E. W. PIKE & COMPANY
492 NORTH AVENUE ELIZABETH 3, N. J.

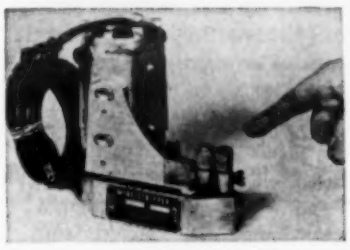
▲ For more details circle NED-2327 on enclosed inquiry slip ▲

STATIC ELECTRICITY REMOVER for film, sheet or strip materials

Removing static electricity or charged dust or lint particles from film, sheet, strips or other materials is function of this commercial Staticmaster. Material is passed through working aperture of device which can be used separately or as integral part of an automatic process. The model shown is made in two sizes, with 3 and 6-in. brushes, respectively, and has polonium grid above and below the aperture to add greatly to the speed of static removal. Made by **Nuclear Products Co.**, Dept. 25, 10173 E. Rush St., El Monte, Calif.

▲ For more details circle NED-2328 on enclosed inquiry slip ▲

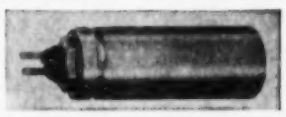
SMALL-WIRE STRIPPER removes film type insulations



Wire ranging in size from No. 40 to 50 can be stripped of film insulation readily with this type R Midget Stripper. Machine can be used in conjunction with coil winder by mounting it on fixed or swinging bracket. Stripper operates in any position. FybRglass ⅝-in. diameter wheels developed enough frictional heat to melt the insulation and to wipe away the residue. Insulation is removed without scoring or breaking the wire. Leads can be stripped up close to coils. Made by **Eraser Co.**, 108 S. State St., Syracuse 2, N. Y.

▲ For more details circle NED-2329 on enclosed inquiry slip ▲

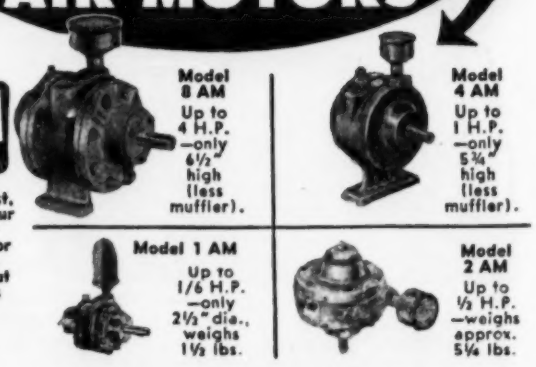
SINGLE STUD CAPACITORS are easy mounting and oil filled



Addition of 8 microfarad (600 v dc), dual 4 mfd (600 v dc), 4 mfd (1000 v dc) and similar units with same size case completes this line of easy mounting G and H type single stud tubular oil filled capacitors. Two or three-prong units are filled with Indco oil A or Pyroteen. Standard capacity tolerance is plus 20 per cent, minus 10 per cent. Oil filled unit has temperature range from −40 to 70° C, while the Pyroteen filled units have a range from −70 to 90° C. Power factors are 0.4 and 0.2 per cent, respectively. Capacitors meet salt water immersion requirements and are supplied with case insulated from terminals unless otherwise specified. Made by **Industrial Condenser Corp.**, 3264 N. California Ave., Chicago 18, Ill.

▲ For more details circle NED-2330 on enclosed inquiry slip ▲

Get astonishing POWER and other unique advantages with GAST rotary AIR MOTORS



See our CATALOG in SWEET'S FILE for PRODUCT DESIGNERS

Write Gast, stating your specific problem or mention model that interests you.

FOR YOUR ORIGINAL EQUIPMENT APPLICATIONS...

Gast rotary-vane Air Motors may solve tough problems on **your** product! They're lower in first cost, variable in speed, explosion-proof, quick starting, **amazingly** compact and light compared to electric motors.

Four sizes available, reversible and non-reversible ball bearing types, several mounting styles, speeds to 12,000 RPM. Numerous accessories. "Air may be your Answer!"

Original Equipment Manufacturers for over 25 years

GAST ROTARY AIR MOTORS • COMPRESSORS • VACUUM PUMPS
(TO THREE H.P.) (TO 30 LBS.) (TO 28 INCHES)
GAST MANUFACTURING CORP., 115 Hinkley St., Benton Harbor, Mich.

▲ For more details circle NED-2331 on enclosed inquiry slip ▲

New Concepts in Fine-Pitch Gear Supply!

RYNEL Air-Lift Service

Rynel's unique new air-lift is your private avenue to peak efficiency in fine-pitch gear supply.

Quickly, conveniently, your Rynel air-lift takes you to the Rynel plant for the direct, effective planning that assures you complete production coordination . . . and you speed back to your own plant free from concern over fine-pitch gear supply.

Completing the efficiency cycle, Rynel air-freight rushes those vital gears to your assembly line in minimum delivery time. You know they're the best in fine-pitch gears, too, because they're Rynel quality-controlled from blank to final inspection.

Rynel supplies Precision FINE-PITCH GEARS for all major Electronics-Instruments-Communications Applications.

A Rynel Engineer will visit you the same day you call.
PHONE STERLING 4440

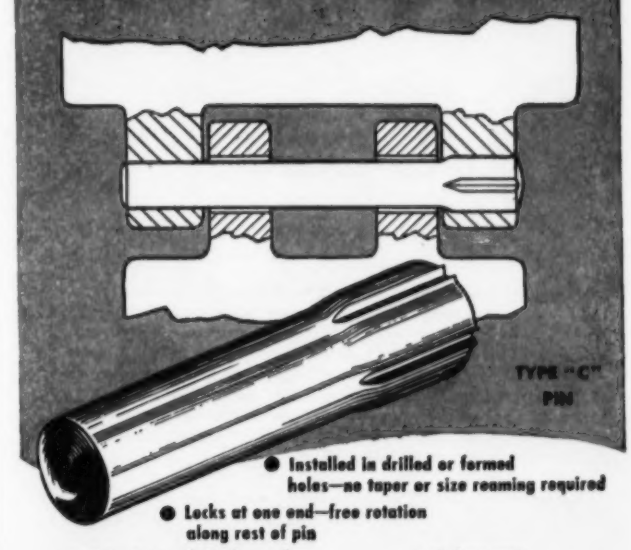
RYNEL CORPORATION

• Sprocket • Worm • Ratchet
Spur • Helical • Worm Gear •
Internal Segment • Straight Bevel

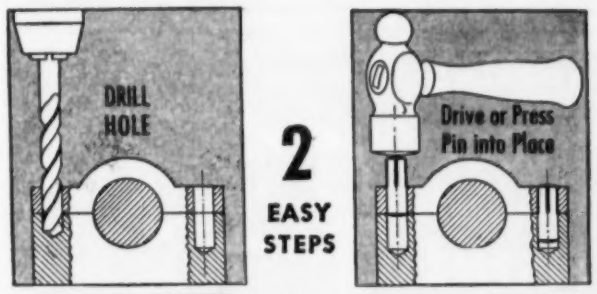
301 Miller Street • Sterling, Illinois

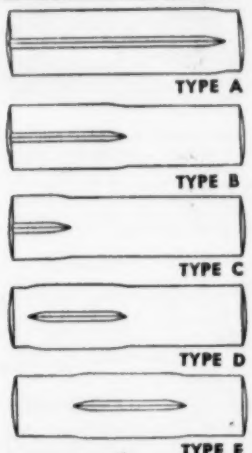
▲ For more details circle NED-2332 on enclosed inquiry slip ▲

fast... low cost HINGE, LINKAGE or PIVOT assembly with DRIV-LOK PINS



● Installed in drilled or formed holes—no taper or size reaming required
● Locks at one end—free rotation along rest of pin
● Vibration and shock-proof
● Low cost





Reduce costs and speed assembly of hinges, linkages or pivoted members by using DRIV-LOK Pins—the Pins that lock themselves securely by being driven or forced into the hole.

Grooved at one end for positive anchorage, Type "C" Pins (illustrated above) permit free rotation of parts around the ungrooved portion.

DRIV-LOK Pins are available in many types—in carbon steel, stainless, alloy and brass; diameters from 3/64" to ½"; can be heat treated or plated to your specifications.

Write for Catalog and samples, giving nature of your fastening problem.

DRIV-LOK PIN COMPANY
717 Chauncey St. • Sycamore, Ill.

▲ For more details circle NED-2333 on enclosed inquiry slip ▲

Six to ten times faster than conventional air cylinders, the Bellows Super-Speed Air Motor develops tremendous speed and power from normal air pressure. At 100 lbs. air, power is great enough to punch ½" dia. hole through 1/16" thick mild steel. Ideal for staking, riveting, forming, swedging, stamping or punching.

The Super-Speed Air Motor is a complete power unit with built-in low voltage Electroaire directional valve and speed regulators. (Also available with manually controlled valve.) Only one air connection needed.

Write for Bulletin 1163 today.
Address: Dept. NED 1152
The Bellows Co., Akron 9, Ohio.

2½" BORE • Stroke Lengths 2½" 4", 6", 9", 12" • Seven Mounting Styles

The Bellows Co. Akron 9, Ohio

1214

For more details circle NED-2334 on enclosed inquiry slip

Take surface temperatures quickly, accurately... with the

The handy Alnor Pyrocon is unequaled for quick, accurate reading of all surface temperatures . . . whether surfaces are metallic or non-metallic, flat or curved. Accurate temperatures are easily understood on the Pyrocon's direct reading scale face . . . without interpolation or need of conversion tables. A wide selection of thermocouples and extension arms permits adaptation to many types of service. For complete details and prices, send for Bulletin No. 4257. Illinois Testing Laboratories Inc., Room 529, 420 N. LaSalle Street, Chicago 10, Ill.

Alnor PRECISION INSTRUMENTS FOR EVERY INDUSTRY

For more details circle NED-2335 on enclosed inquiry slip

WORKING SHEET OR PLATE STEEL?

LOOK at what PULLMAX CAN DO

STRAIGHT CUTTING

Straight cutting, circle cutting, free hand cutting, slot cutting, beading, folding, louvering and many variations of these operations . . . ALL ON ONE PULLMAX MACHINE! Easy to set up and change tools . . . seven sizes of machines work materials up to 11/32" in mild steel . . . also works stainless steels, non-ferrous metals, wire mesh and plastics.

CIRCLE CUTTING **FOLDING**

WRITE FOR LITERATURE

SLOT CUTTING **BEADING** **FREEHAND**

PULLMAX—A complete sheet and plate working shop in one machine.

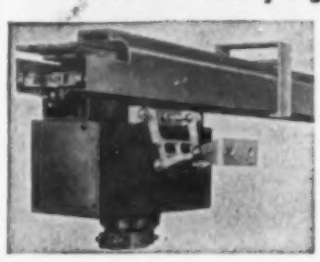
AMERICAN PULLMAX CO., INC.

2457 N. SHEFFIELD AVENUE, CHICAGO 14, ILLINOIS

For more details circle NED-2336 on enclosed inquiry slip

MOVABLE POWER TAKE-OFF

trolleys run in steel housings and current-carrying parts are enclosed



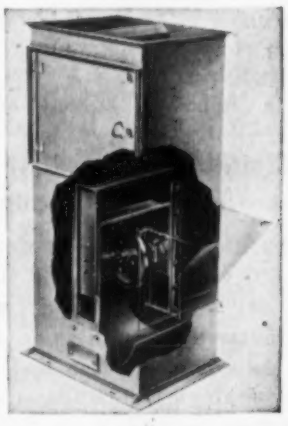
A movable source of power for long runs of heavy moving electrical loads is provided by these heavy duty Feedrail trolley busway systems. Power take-off trolleys run in steel housing that safely encloses current-carrying bus bars. Systems facilitate lateral and transverse movement of heavy tonnage cranes and hoists as well as quick relocation of portable welding equipment or other electrical apparatus. Standard enclosed bus bar sections and accessories combine to make a run of any length. Door track is available for inserting trolleys safely without shutting off power. Aisles and work areas are kept clear since only short overhead cable connections are necessary.

Other features are large sectional area silver alloy brush contacts, wheels at either end of trolley vertical undercarriage to prevent upthrust, horizontal wheels to prevent side slewing and Pantograph type linkage for attachment of equipment to be powered. Systems are rated 250, 375, or 500 amp; 250-v dc; 575-v ac; single or three phase. Made by **Feedrail Corp.**, 127 Barclay St., New York 7, N. Y.

For more details circle NED-2337 on enclosed inquiry slip

TAKE-UP & BOOT

designed for bucket elevators, it compensates for wear and stretch



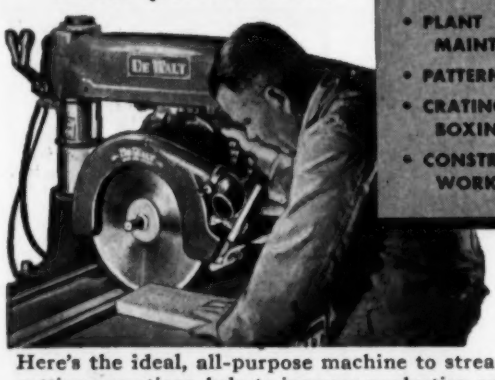
Designed to operate for long periods without adjustment, lubrication or maintenance other than removal of links to compensate for wear, stretch or elongation, this automatic bucket elevator take-up has self-adjusting mechanism to maintain proper chain tension. Also incorporated is a watertight boot which keeps materials dry even though several feet of water may be in the bucket elevator pit.

Take-up has double sealed roller bearings in a dust-tight steel box packed with oiled waste and an automotive type seal around the shaft where it enters the box. A smooth-rim traction wheel in the take-up increases life of the elevator chain. Assembly has a gasketed watertight cleanout door and a watertight steel plate hopper to receive material being fed into the bucket elevator. Made by **Beaumont Birch Co.**, Chemical Handling Div., 1508 Race St., Philadelphia 2, Pa.

For more details circle NED-2338 on enclosed inquiry slip

DEWALT "3 adjustment action"

assures easier, faster performance!



for
- PLANT MAINTENANCE
- PATTERN SHOPS
- CRATING AND BOXING
- CONSTRUCTION WORK

Here's the ideal, all-purpose machine to streamline your cutting operations, help to increase production and cut costs.

De Walt's "3 adjustment action" allows you to position saw for any desired operation...in seconds!

You can make 15 set-ups, 15 different cuts...in less than 15 minutes! You get precision, speed, complete safety. A De Walt does the work of many machines—takes up the space of one.

Write for catalog to: DeWalt Inc., Dept. G-11, Lancaster, Pa.

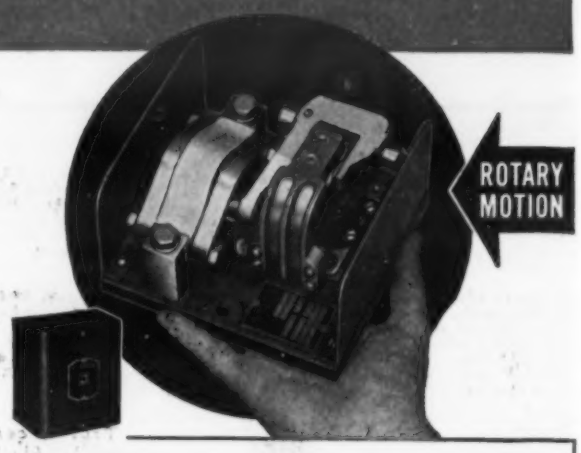
DeWalt Inc. DEWALT Lancaster, Pa.

POWER SAWS

Subsidiary of AMERICAN MACHINE AND FOUNDRY COMPANY, New York

For more details circle NED-2339 on enclosed inquiry slip

NEW..Magnet-Operated Valve



• Fast Operation • Low Pressure Drop • Long Life • Low Power Consumption • Compact • Accessible • Easily Installed.

Write for Bulletin 9043 Type C, Square D Company, 4041 N. Richards Street, Milwaukee 12, Wisconsin

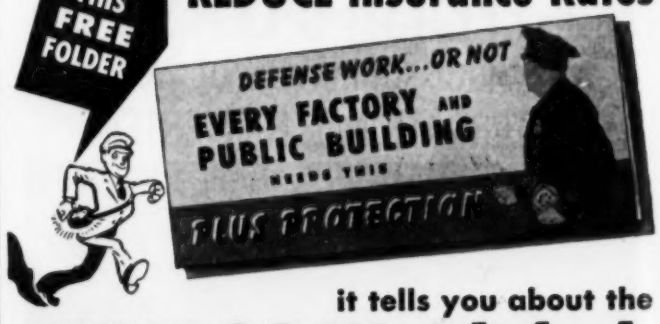
Ask Your Electrical Distributor for Square D Products

SQUARE D COMPANY

For more details circle NED-2340 on enclosed inquiry slip

Play SAFE and, at the same time, REDUCE Insurance Rates

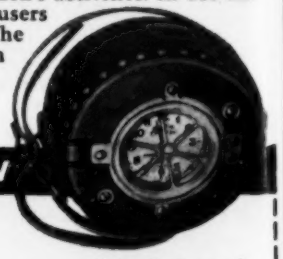
Get THIS FREE FOLDER



it tells you about the

CHICAGO Watchclock

and how it watches the watchman! A tamperproof system that keeps a constant check on watchmen's activities. In use all over the world . . . So effective that users earn reduced insurance rates! The CHICAGO WATCHCLOCK system thereby quickly pays for itself while it gives you protection against fire, theft and sabotage.



FILL IN and MAIL NOW

CHICAGO WATCHCLOCK
Div. Great Lakes Industries, Inc.
1522 S. Wabash Ave., Chicago 5

Gentlemen: Send us your folder of details, and prices on the various CHICAGO Watchclock models.

"The first—and still the first!"

My name.....

Firm name.....

Street..... City..... State.....

For more details circle NED-2341 on enclosed inquiry slip

CLOTH BAG DUST FILTERS
for individual machines

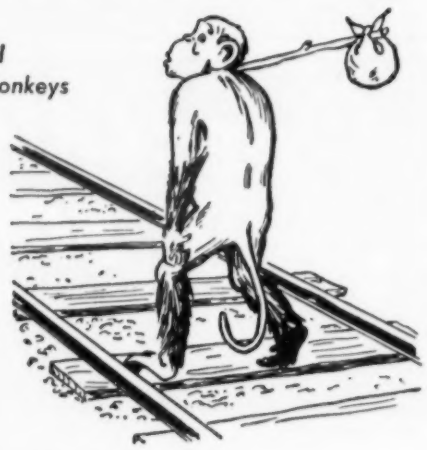
These complete, compact Sly "Unit" Dust Filters offer many economies in limited capacity ranges for the purpose of collecting dust from grinding, sanding, screening, mixing, pulverizing, packaging and finishing operations.

Often several of these units are employed in preference to a single large collector, for greater flexibility of operation, to save piping, and to keep different materials separate.

When you choose your dust collector be sure to get plenty of cloth for the air volume to be filtered. Never install a collector with less than a square foot of cloth for each four cubic feet of dust-laden air. Buy Sly—be safe.

Sly "Unit" Filters are engineered to assure long-time operating efficiency. Low cost, compact, easy to install. Made by **The W. W. Sly Manufacturing Co.**, 4748 Train Avenue, Cleveland 2, Ohio. There are experienced Sly engineers in New York, Chicago, Philadelphia, Syracuse, Detroit, Buffalo, Cincinnati, St. Louis, Minneapolis, Birmingham, Los Angeles, Toronto. Advt.

▲ For more details circle **NED-2342** on enclosed inquiry slip ▲

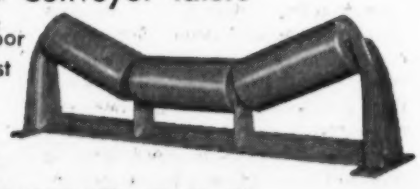


It's a Hard Road for Grease Monkeys since Transall took over

Pre-Lubricated

Belt Conveyor Idlers

No Lubrication Labor
No Lubricunt Cost

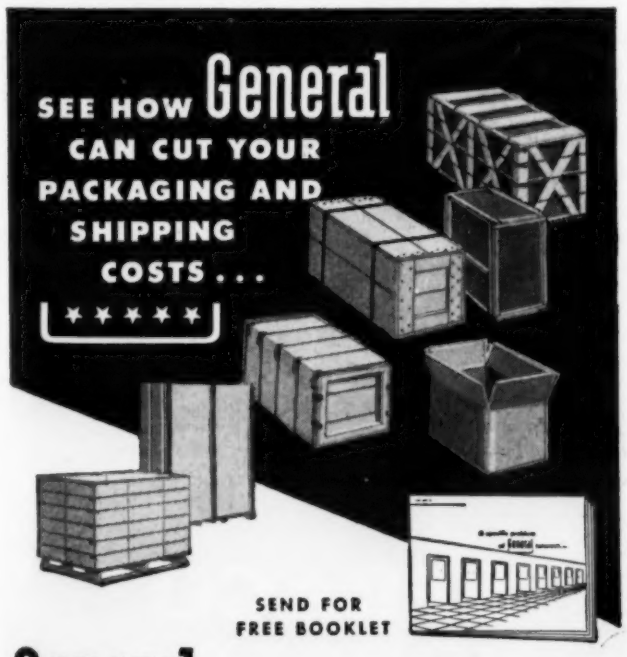


TRANSALL INC.

Manufacturers of a complete line of Belt Conveyor Equipment

119 North 11th St. Birmingham 4, Ala.

▲ For more details circle **NED-2343** on enclosed inquiry slip ▲



General BOX COMPANY

GENERAL OFFICES:
1859 MINER STREET, DES PLAINES, ILL.

DISTRICT OFFICES AND PLANTS: Cincinnati, Denville, N. J., Detroit, East St. Louis, Kansas City, Louisville, General Box Company of Mississippi, Meridian Miss., Milwaukee, Sheboygan, Winchendon. Continental Box Company, Inc.: Houston, Dallas.

▲ For more details circle **NED-2344** on enclosed inquiry slip ▲

CABLE FASTENING GUN
also fastens tubes to wood, plaster

Rapid installation of cables and hollow tube lines to hard or soft woods, plaster wall, flooring, joists, motor joints and cinder building blocks is possible with this hand-held automatic fastening gun. Operated by one hand, it leaves the other hand free to guide the lines being installed. Staple-type gun drives an extra-size Heller band with leg lengths varying from 3/16 to ½-in. Made by **Heller Co.**, 2153-E Superior Ave., Cleveland 14, O.

▲ For more details circle **NED-2345** on enclosed inquiry slip ▲

POCKET LEVEL
can be imprinted with company name

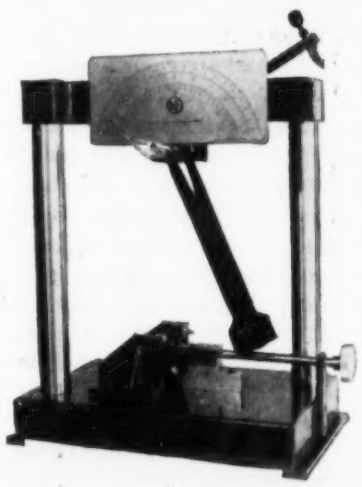
Practical for on-the-job applications is this No. 556 pocket level which can be imprinted with company name or sales slogan. Levels are made of ⅜-in.

hex aluminum tubing, are 5¼ in. long and fitted with pocket clips. They are available in red, blue or gold colors which are anodized and dyed by Alumilite process and cannot chip, craze or peel off. Made by **Columbian Vise & Mfg. Co.**, 9023 Bessemer Ave., Cleveland 4, O.

▲ For more details circle **NED-2346** on enclosed inquiry slip ▲

IMPACT TESTER
for plastics, ceramics, light metals

Either the Izod (cantilever beam) or Charpy (simple beam) test can be made by this impact tester on each of its three capacity ranges. Adaptable to the testing of plastics, ceramics and light metals, the tester has a separate hammer for each test in each range, or six hammers in all. Accuracy conforms to federal specification L.P. 406a and ASTM standard D 256. Made by **National Forge & Ordnance Co.**, Testing Machine Div., Dept. 492-DD, Irvine, Warren County, Pa.



▲ For more details circle **NED-2347** on enclosed inquiry slip ▲

CUT COSTS . . . SPEED PRODUCTION

BRADY STOCK
QUIK-MASKS®
MOUNTED ON CARDS for
• PAINTING • PLATING
• TUMBLING • BUFFING

Protect machined parts, name plates, holes, threads, designs, etc., during finishing operations. Eliminate slow, costly hand cutting of masks and stencils.

Self-adhesive Brady QUIK-MASKS are pre-cut to sizes and shapes you need. They come mounted on handy dispenser cards or individual liners for speedy application. You just *peel, press, protect.* Hi-Heat resistant to 300° F. Quickly removed after baking without residue. Squares, circles and rectangles in all standard production sizes available from stock. Specials made to your exact requirements. Send for FREE samples and idea-packed literature.

WIRE MARKERS
PIPE MARKERS
SAFETY SIGNS
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MASKS & STENCILS

MANUFACTURERS OF SELF-STICKING PRODUCTS

W. H. BRADY COMPANY

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▲ For more details circle **NED-2348** on enclosed inquiry slip ▲

EASY-WELDING
THE PROBLEM METALS

ALUMINUM
STAINLESS STEELS
NICKEL ALLOYS

Here's the story of Heliwelding — Airco's inert-gas arc-welding process. Its special characteristics — freedom from oxidation — pin-point heat concentration — give it a definite role in the family of arc welding methods.

When you're faced with welding thin sections of the problem metals — stainless steel, aluminum, brass, copper, everdur, nickel, inconel, or monel, it will pay to know all about Airco's Heliwelding Process.

To get your copy of Catalog 9, Heliwelding, just write in today on your letterhead: Address: Advertising Department, Air Reduction Sales Company, 60 East 42nd Street, New York 17, N. Y.

AT THE FRONTIERS OF PROGRESS YOU'LL FIND

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REPRESENTED INTERNATIONALLY BY AIRCO INTERNATIONAL
Divisions of Air Reduction Company, Incorporated
Dealers and Offices in Principal Cities

▲ For more details circle **NED-2349** on enclosed inquiry slip ▲

HOW TO SELECT THE *RIGHT* MOTOR AND CONTROL FOR YOUR JOB

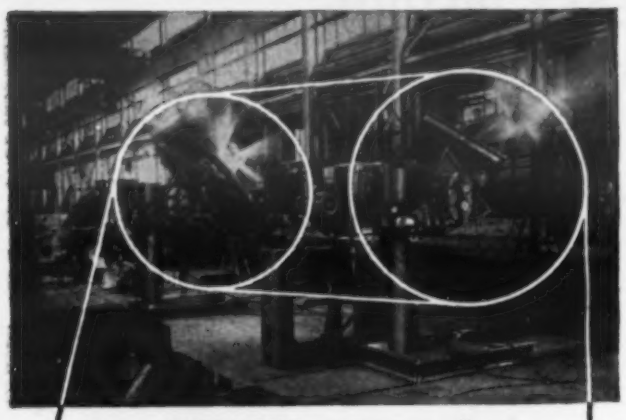
Name your motor and control need . . . a-c or d-c, from 1 to 700 hp . . . this book has the answers! Gives requirements to consider before selection. Features comprehensive chart, teaming the right motor and control to the right job.

Introduces Westinghouse motor and control features—tells what they mean to you . . . shows modifications and accessories available and explains how they add life and versatility. It's a valuable selection guide with a storehouse of facts. Write for free booklet, Motor and Control Selector Guide, B-5458, Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Pennsylvania.

J-21687

YOU CAN BE SURE . . . IF IT'S Westinghouse
MOTORS and CONTROLS

▲ For more details circle **NED-2350** on enclosed inquiry slip ▲



More WELDING going on here....

More welding and less time spent in flopping, propping up and crawling around weldments is the end result of the C-F Positioners in this welding department.

Mounted on C-F Welding Positioners, weldments can be quickly brought into position for a downhand pass — better, more uniform welds with resulting economies and production increases follow. Welders spend more time welding when they work with C-F Positioners because one "set-up" on the table allows them to maneuver the job without assistance, whether hand or power operated Positioners are used.

Power operated, variable speed C-F Positioners, with table rotation speeds in any range from 0 RPM and up, coupled with table tilt to 135° from the horizontal make them the logical choice for any production welding operation. Like all C-F Positioners, they have drilled tables for easy set-ups or tables can be quickly removed for installation of special fixtures or jigs. Write for Bulletin WP 26. CULLEN-FRIESTEDT CO., 1304 S. Kilbourn Ave., Chicago 23, Ill.

CULLEN-FRIESTEDT CO. CHICAGO 23, ILL. C-F positioned welds mean better, more economical welds

▲ For more details circle NED-2351 on enclosed inquiry slip ▲

No Structural Weakness

with CAMCAR COLD-FLOW

Machined | Cold-Flow

See the difference!

These two parts, one made by high production Camcar Cold-flow and the other by machining, were microphotographed to give visual proof of the strength and accuracy inherent in Camcar Cold-flow.

Notice the smooth structural lines of the Cold-flow part following the entire contour, including the threads. The metal flows where strength is required; machining cuts away the natural grain flow.

Order Camcar Cold-flow small metal parts for maximum tensile strength and close tolerances. You'll be convinced of the tremendous quality and production advantages on your first Camcar Cold-flow order. Send us parts or prints today.

Telephone 5-9451
Teletype RK-8653

CAMCAR SCREW & MFG. CORP.
601 EIGHTEENTH AVENUE, ROCKFORD, ILLINOIS

"PRODUCTION DESIGNED FOR YOUR ASSEMBLY LINE"

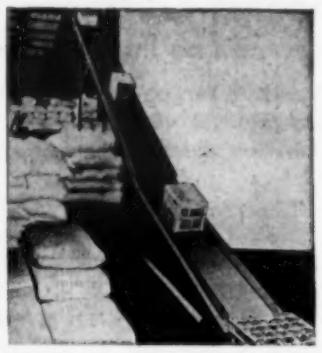
▲ For more details circle NED-2352 on enclosed inquiry slip ▲

FAST-CUTTING CHAIN SAW
20-in. size has increased power

Latest addition to Woodlot Wonder line of chain saws is this 20-in. size which features a faster-cutting chain and increased motor power. Cutting speed, light weight, handling ease and the extra power make this model 3 class of saws, which now contains 16-in., 20-in. and bow saws, highly practical for felling and cutting. Made by **Lombard Governor Corp.**, 150 Main St., Ashland, Mass.

▲ For more details circle NED-2353 on enclosed inquiry slip ▲

INCLINED BELT CONVEYOR
expedites floor to floor handling



Extra long tail section permits hand loading or unloading from the sides of this Streamliner 30-degree inclined belt conveyor which is furnished to operate up or down at constant speed of 45 fpm. Rollers can be set high for oversize packages, or low to provide guard rail on both sides of belt. Modified designs of this unit are offered in standard sizes up to 30-in. belt width with 5½-in. side channels, with or without guard rails. Portable units are also available. Made by **Harry J. Ferguson Co.**, 133 West Ave., Jenkintown, Pa.

▲ For more details circle NED-2354 on enclosed inquiry slip ▲

TWO-WAY VALVE
easily disassembled for cleaning

All parts exposed to the product handled by Saniflo two-way valves are made of type 18-8 stainless steel. Valve features Stabilflo diaphragm motor and is easily disassembled for cleaning. The one-piece stem and plunger will not harbor bacteria and contaminating elements. Body construction allows high product flow, even with highly viscous products. Modified parabolic plunger is equally effective in throttling (proportional) and open-and-shut control. Line sizes from 1 through 3 in. are available. Made by **Foxboro Co.**, 26 Neponset Ave., Foxboro, Mass.

▲ For more details circle NED-2355 on enclosed inquiry slip ▲

STATIC or DYNAMIC

stress studies with the portable **polariscope**

The G-R Type 1534-A Polariscope is a compact, portable, precision instrument which for the first time makes practicable low cost, photo-elastic stress analysis in the drafting room, testing department and demonstration room as well as in the laboratory.

This polariscope enables identification of stress concentrations . . . reveals stresses at inaccessible points . . . simplifies the design of full-scale parts.

Visual or photographic studies of small, inexpensive plastic models of mechanical parts and structural members can be made quickly, accurately and inexpensively.

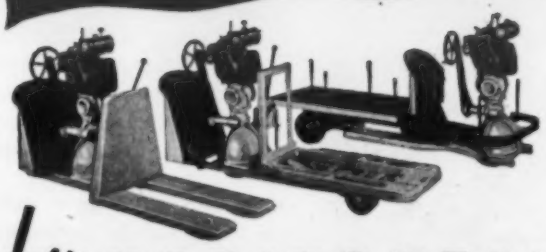
For detailed information write for the Polariscope Bulletin.

Type 1534-A Polariscope $490

GENERAL RADIO Company 275 Massachusetts Ave. Cambridge 39, Mass.
90 West St. NEW YORK 6 920 South Michigan Ave. CHICAGO 5
1000 North Seward St. LOS ANGELES 38

▲ For more details circle NED-2356 on enclosed inquiry slip ▲

truck-man



for HORIZONTAL Material Movement

Four models for LOW COST handling. Wisconsin powered, 360° turning, simple controls. Many get 8 hrs. per gallon. Pneumatic drive wheels, easy on floors, elevators, operators. Under 1000 lbs., rate up to 3500 lbs. Model DF hydraulic Pallet Lift, ideal inter-plant and "feeder" to stackers. Rates 3000 lbs., 40" to 48" pallets. Maneuverable in narrow aisles.
Model D hydraulic Skid Lift. Safety controls start and stop 3500 lb. loads without jarring. Pneumatic drive wheels, 9" rubber load wheels cushion ride.
Model DT Platform Utility for manual loading. Carries mobile workshops, pipe, lumber, firefighting and maintenance equipment. Speedy, four pneumatic tires.
NEW TRUC-TOR pulls 13,000 lbs., weighs 990. Ideal for limited-load floors, docks, elevators. Anyone can operate. Specials built for unusual conditions. Write for 1952 catalog and name of your dealer.

truck-man Div. of The Knickerbocker Co.
627 LIBERTY ST., JACKSON, MICH.

▲ For more details circle NED-2357 on enclosed inquiry slip ▲

with a MILWAUKEE BRIQUETTING PRESS

Conserve critical metals . . . decrease scrap handling costs . . . save storage space with the MILWAUKEE Briquetting Press. It automatically converts low-grade bulk metal turnings, borings, chips and shavings into dense cylindrical briquettes which are suitable for direct charging into furnace or foundry cupola as high-grade scrap. In many plants, savings pay for press in less than one year.

Write today for Bulletin No. 117 for complete details.

SPO MILWAUKEE Foundry Equipment Division
6475 Grand Division Ave. • Cleveland 25, Ohio

▲ For more details circle NED-2358 on enclosed inquiry slip ▲

SPRACO NOZZLES

Write for NOZZLE CATALOG to
SPRAY ENGINEERING CO.
106 CENTRAL STREET • SOMERVILLE 45, MASS.

▲ For more details circle NED-2359 on enclosed inquiry slip ▲

BEVERLY THROATLESS SHEARS

MAKE CUTS LIKE THESE

QUICKLY... EASILY... ACCURATELY

18 ga. metal cut with Model B-1 Shear.

Save time, labor and material—use a Beverly to make any cut . . . straight, curved or irregular in any metal. Exclusive design allows work to be turned at any angle while cutting. Standard in the industry for years. 4 models—capacities to ⅛" mild.

See your Beverly Distributor for a demonstration. Write for FREE illustrated circular on Beverly metal cutting Shears.

MODEL B-3 with ball bearing hold down. Cap. ⅛" mild; 10 gauge stainless.

Beverly SHEAR MFG. CO.

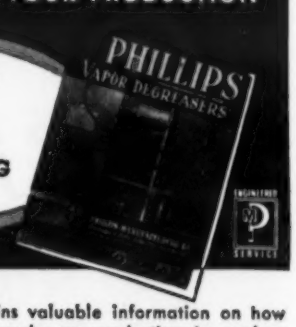
3016 W. 111th STREET • CHICAGO 42, ILLINOIS

▲ For more details circle NED-2360 on enclosed inquiry slip ▲

PHILLIPS

LEARN HOW VAPOR DEGREASING CAN CUT COSTS AND INCREASE YOUR PRODUCTION

SEND FOR YOUR FREE COPY OF PHILLIPS' NEW DEGREASING BULLETIN



HERE's a new bulletin that contains valuable information on how modern vapor degreasing speeds up production in modern factories by making metal cleaning operations faster and more economical. Listed below are some of the features of this new book:

WHAT DEGREASING IS — A full description of what vapor degreasing is and what it will accomplish for you.

HOW DEGREASERS WORK — A series of photographs and written description shows what happens in the degreasing process.

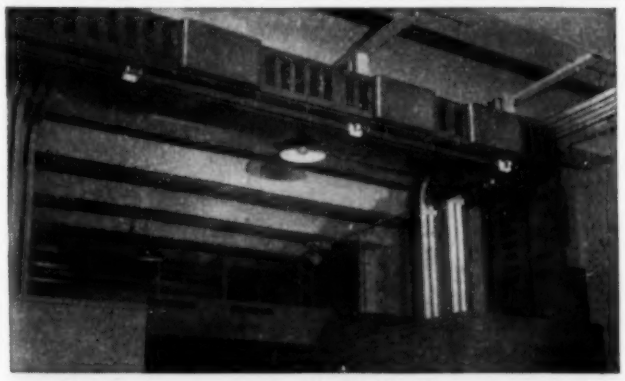
DEGREASER APPLICATIONS — Illustrates number of different applications of degreasers to solve metal cleaning problems in various industries.

COMPLETE LINE OF STANDARD DEGREASERS — Describes Phillips' full line of standard equipment, including batch type, combination, rotomatic, and conveyorized models.

SPECIALLY ENGINEERED UNITS — Tells about Phillips' service in designing special degreasing units for solving unique metal cleaning problems.

Phillips 3463 Touhy Avenue • Chicago 45, Illinois
MANUFACTURING COMPANY
Engineered Metal Cleaning Equipment

▲ For more details circle NED-2361 on enclosed inquiry slip ▲



Modern power distribution made more convenient, more economical!

Trumbull Electric now offers LVD (Low Voltage Drop) FLEX-A-POWER with *aluminum* busbars—a major contribution to the busway field.

Aluminum LVD has the outstanding additional advantage of being 25 to 35% lighter in weight—making LVD FLEX-A-POWER easier to handle and cheaper to install than ever before. All joints are silver plated for positive contact and longer life. In many cases there is less voltage drop, which provides operating economy.

Write for complete information on aluminum LVD FLEX-A-POWER.

Trumbull Assures LASTING FLEXIBILITY in Power Distribution

TRUMBULL ELECTRIC

DEPARTMENT OF GENERAL ELECTRIC COMPANY
PLAINVILLE, CONNECTICUT

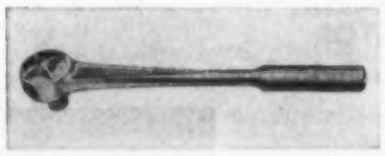
▲ For more details circle NED-2362 on enclosed inquiry slip ▲

DOUBLE-ROW BALL BEARING for limited space applications

Illustrated type DR-L (double row light) ball bearing bushing is designed for use where space is limited. Split outer race permits full complement of balls, and section height is only 0.25-in. Bearings are factory prelubricated and give extended service without regreasing. Outer race is ground to close tolerance for press fit or for slip fit. Both types will carry thrust and radial load. Made by **Split Ballbearing Corp.**, 211 Mechanic St., Lebanon, N. H.

▲ For more details circle NED-2363 on enclosed inquiry slip ▲

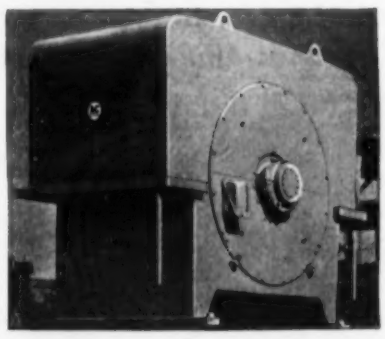
RATCHET WRENCH for nuts has reversible action



Concentric type mechanism of 82-tooth action in this No. S-52 reversible ratchet in the ½-in. square drive Supersocket line provides small increments of ratchet action. Rotation of nuts in close quarters is easy and rapid. Accessibility of the "Shifter" provides instantaneous reverse action and one-hand operation. Tool, with knurled handle, is made of chrome plated alloy steel. Made by **J. H. Williams & Co.**, Dept. NED-11, 400 Vulcan St., Buffalo 7, N. Y.

▲ For more details circle NED-2364 on enclosed inquiry slip ▲

WEATHER-PROTECTED MOTOR for outdoor, semioutdoor use



Intake air velocity of this weather-protected motor for semioutdoor and outdoor steam electric stations has been reduced to less than 600 fpm so heavy rain particles or wind-driven moisture cannot be drawn in its windings. Air moves vertically upward through side intakes into expanded air space, further lowering its velocity. Rain gutters are provided on sides at air intakes, draining through pipes to the ground. The screened air intakes, located high above ground level, also prevent dust from entering machine. Motor is available in full range of ratings required for major auxiliary drives, including boiler feed pumps. Made by **Allis-Chalmers Mfg. Co.**, 918 S. 70th St., Milwaukee 1, Wis.

▲ For more details circle NED-2365 on enclosed inquiry slip ▲

▲ For more details circle NED-2366 on enclosed inquiry slip ▲

Use Schrader flow control valves to improve Air Cylinder Performance

Positive control of compressed air is provided by **Schrader Flow Control Valves.** They control piston speed in either direction without reducing the force.

An adjustment screw permits quick increase or decrease of flow, from zero to full.

Available in five sizes, ⅛" to ¾" thread, and made of corrosion-resisting materials throughout, Schrader Flow Control Valves have simple construction readily serviced without being removed from the line.

Send today for complete information on Schrader Flow Control Valves. They'll help make air a more useful tool in your plant.

A. SCHRADER'S SON

Division of Scovill Manufacturing Company, Incorporated
459 Vanderbilt Ave., Dept. E-41, Brooklyn 17, N. Y.

▲ For more details circle NED-2367 on enclosed inquiry slip ▲

HONEYWELL dampers are the ideal solution to the problem of controlling air flow . . . in cooling towers, engine test cells, ovens, kilns, paint rooms, foundries and countless other industrial applications.

Honeywell custom-builds dampers to your individual needs . . . in any size, shape or blade arrangement . . . with Honeywell electric or pneumatic positioners, or for manual operation.

Get full details today! Call our local engineering representative . . . he is as near as your phone.

MINNEAPOLIS-HONEYWELL REGULATOR COMPANY, *Industrial Division*, 4529 Wayne Avenue, Philadelphia 44, Pa.

MINNEAPOLIS Honeywell

First in Controls

● *Important Reference Data*
Write for a copy of new Bulletin 8502.

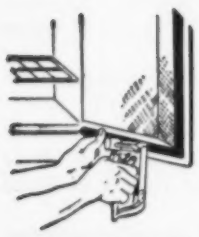
▲ For more details circle NED-2368 on enclosed inquiry slip ▲

FASTER! with HANSEN

Hansen tacks radio wires, TV inside aerials, and other assembly jobs.

1001 USES

Saves TIME - STEPS MATERIALS



Special models with extended lip for tacking gaskets, channels, etc.

HANSEN speeds up all types of tacking and fastening jobs. Fast, easy one-hand operation. Drives fast as you grip.

Self-contained. Ready for instant, continual use. Light weight. Easily portable. Take it to the job.

Balanced design for precision, accurate driving. Take-up Jaw for quick, on-the-job servicing.

36 MODELS
80 STAPLE SIZES

REQUEST BOOKLET

A.L. HANSEN MFG. CO.
5164 RAVENSWOOD AVE. CHICAGO 40 ILLINOIS

For more details circle NED-2369 on enclosed inquiry slip

SEAMS REDUCED TO ABSOLUTE MINIMUM!

NEW AO ASBESTOS GLOVES

By reducing seams from 8 to 3, there's not only greater hand comfort for the worker but longer work life for the glove. Compare with any conventional asbestos glove and see the difference! Your nearest AO Safety Products Representative can supply you.

QUICK FACTS

- Finest grade specially treated asbestos, recommended for extreme heat.
- Closely woven yarn. Double stitched.
- Line includes No. 514 Asbestos Glove (shown) No. 1514 with leather reinforced palm, No. 2514 with asbestos reinforced palm and No. 3514 with full reinforced palm and finger area.

American Optical
SAFETY PRODUCTS DIVISION

Southbridge, Massachusetts • Branches in Principal Cities

For more details circle NED-2370 on enclosed inquiry slip

If you have a problem of misalignment

This new book will be a big help. It contains complete details on the entire Baldwin-Rex line of flexible couplings—Tru-Flex, Semi-Flex, Twin-Flex, Compound and Floating Shaft types. It gives you the facts on why Baldwin-Rex Couplings are truly flexible, are shock absorbing without backlash and are easy to install. The book includes all specifications, prices and horsepower tables.

Just use the coupon to send for your free copy today.

Baldwin-Duckworth Division of Chain Belt Company
364 Plainfield Street
Springfield 2, Mass. 51-408

Please send me Flexible Coupling Bulletin.

Name.....
Company.....Dept.....
Address.....
City.....State.....

BALDWIN·REX

For more details circle NED-2371 on enclosed inquiry slip

TRUCK LOADING HOIST operates off vehicle's battery

Hoisting capacity of 1000 lb is provided by the Pacific portable electric loading hoist for trucks. It operates off the truck's battery and features adjustable boom height and length, 360-degree swing, remote pushbutton control and automatic braking at any point. Hoist lifts 500 lb at 10 fpm, 250 lb at 15 fpm and, with half-tackle lifts, 1000 lb at 5 fpm. Made by **Rushlight's Inc.**, Hoist Div., 2946 S. E. Powell Blvd., Portland 2, Oreg.

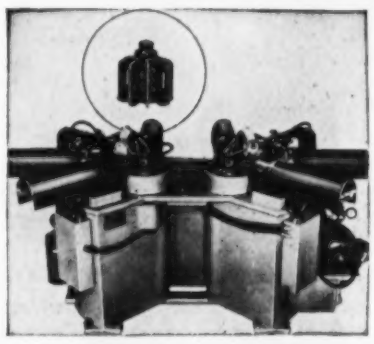
For more details circle NED-2372 on enclosed inquiry slip

ROOF VENTILATOR all types include base

This completely die-fabricated room ventilator can be obtained as a revolving head, revolving head with fan, or with stationary type ventilator. All types include a base. Ventilators are made of 26-gage steel and are galvanized with satin aluminum finish. They are designed for ease of installation. Made by **Clay Equipment Corp.**, 200 Flower St., Cedar Falls, Iowa.

For more details circle NED-2373 on enclosed inquiry slip

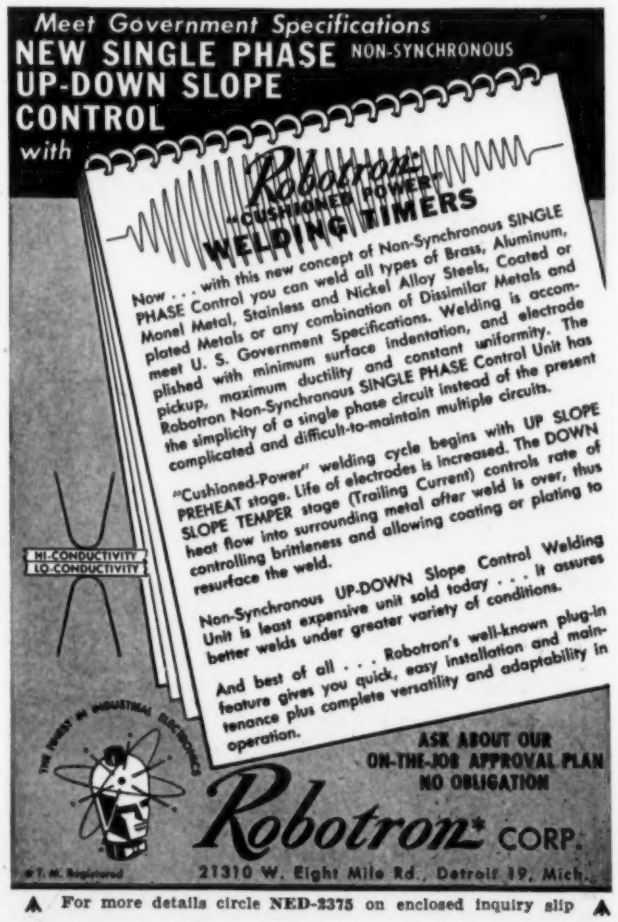
SHELL FIN DRILLING MACHINE uses eight traversing drill units



Eight traversing-motor-shaft type Black drilling units are utilized in this special machine built by Bartelt Engineering Co. for speeding production of 60-mm mortar shell fins. Completely automatic two-station machine requires one operator for feeding and unloading both stations at end of each cycle. It drills sixteen 5/16-in. holes in each fin, four at a time with only two 180 degree indexing movements. Drill units which provide fast advance of drill to work, positive feed and quick return after breakthrough are made by **Black Drill Co.**, 1380 E. 222nd St., Cleveland 17, O.

For more details circle NED-2374 on enclosed inquiry slip

Meet Government Specifications
NEW SINGLE PHASE NON-SYNCHRONOUS UP-DOWN SLOPE CONTROL *with*



For more details circle NED-2375 on enclosed inquiry slip

FOR BETTER CONTROL IN THE TIGHT SPOTS

CRANE IRON BODY CLAMP GATE VALVES

Here's an inexpensive, versatile gate valve with a special talent for tight places. It's unusually compact and extra sturdy. You can use it for steam, hot and cold water, for crude, fuel and lubricating oils, and for gas and gasoline services. All-iron inside screw valves have one-piece, free-draining bonnet. Ideal for handling heavy, sticky fluids. For inspection or cleanout, the bonnet assembly and wedge disc lift out easily—the body stays in the line. And you'll have no trouble in reassembling—the bonnet joint always makes up tight and stays tight.

Send for Folder AD 1667 or ask your Crane Representative for full details.

Crane Wedge Disc Clamp Gate Valves come in OS&Y, inside screw, and quick-opening patterns, all-iron or brass trimmed. Sizes up to 4 in. Working pressures up to 150 psi saturated steam.

CRANE CO., 836 S. Michigan Avenue, Chicago 5, Ill.
Branches and Wholesalers Serving All Industrial Areas

CRANE *Everything for Every Piping System*

VALVES • FITTINGS • PIPE • PLUMBING AND HEATING

For more details circle NED-2376 on enclosed inquiry slip

---

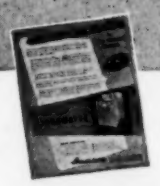
a $ure $hot for $avings

14 REASONS WHY PRECISION FINISHING COSTS LESS WITH THE NEW LIQUAMATTE

Mechanical equipment for producing close tolerance finishes has finally been perfected. "Hand" finishes are now produced mechanically in a matter of seconds in the new Liquamatte without the operating difficulties usually encountered in these processes. A simplified method of wet blasting, the new Liquamatte has 14 advanced design features that lower finishing costs.

Typical heat treated forging die, one half of which has been cleaned with the Liquamatte using a fine mesh Liquabrasive.

The Liquamatte is easier to start and more convenient to operate. Work can be handled faster with less effort and with far less down time. As a result, the Liquamatte uniformly removes scale and grinding lines at a new low cost. It cleans tools, dies and molds with greater efficiency while holding tolerances of .0001".



THE 14 WAYS the Liquamatte simplifies wet blasting are described in Bulletin 23. *Send for your copy today.*

American LIQUAMATTE WET BLASTING
WHEELABRATOR & EQUIPMENT CORP.
508 S. Byrkit St., Mishawaka 8, Ind.

For more details circle NED-2377 on enclosed inquiry slip

for • SPRAYING • WASHING • RINSING • COOLING • AIR CONDITIONING

Get the most out of your Spraying Equipment with minimum power . . . with efficient spraying.
Use Yarway Nozzles. No internal vanes or other restrictions to clog or hinder flow.
Wide range of standard sizes and capacities. Cast or machined from solid bar stock.
Thousands in use. Write for Bulletin N-616.

YARWAY

SPRAY NOZZLES

YARNALL-WARING COMPANY
131 Mermaid Avenue, Philadelphia 18, Pa.

▲ For more details circle NED-2378 on enclosed inquiry slip ▲

MOVING MOUNTAINS

with Spencer Vacuum

Yes — Spencer Vacuum is moving chemicals, hot materials and just plain debris by the ton. But the biggest mountains of industry are plant housekeeping and sanitation. Whether it's 500 acres in a chemical plant to be cleaned every night, or the few specks of dust that cause rejects in ceramic and instrument plants — Spencers are doing the job with less man power.

Ask for Bulletin No. 144—it describes 132 applications.

THE SPENCER TURBINE COMPANY • HARTFORD 6, CONNECTICUT
SPENCER HARTFORD
439-M

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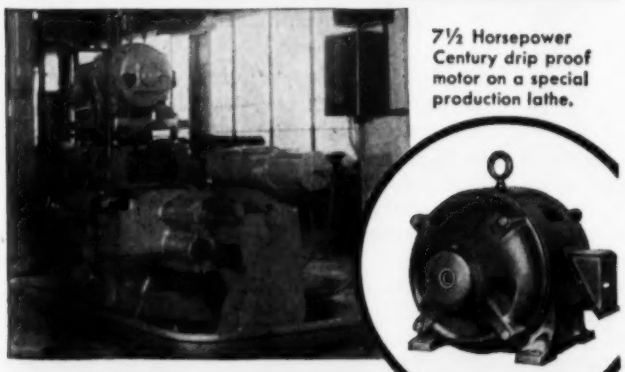


7½ Horsepower Century drip proof motor on a special production lathe.

Century MOTORS'

Unusual Freedom from Vibration Helps Maintain Close Tolerances — with a Minimum of Rejects

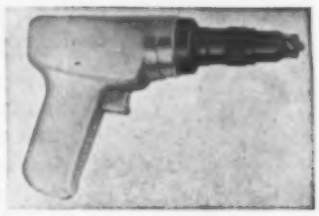
Century motors are designed to help you get the accuracy that was built into your modern production machines. They are ruggedly built, carefully machined and well balanced both mechanically and electrically.
You may select Century motors in: open drip proof — splash proof — or totally enclosed fan cooled construction to assure uninterrupted production against various atmospheric hazards.
They are built in a wide range of sizes from 1/8 to 400 horsepower. Specify Century for all your equipment.

CENTURY ELECTRIC COMPANY
1806 Pine Street, St. Louis 3, Missouri
Offices and Stock Points in Principal Cities
-700R

CENTURY SERVICE
Is Near Any CENTURY Motor Driven Equipment

▲ For more details circle NED-2380 on enclosed inquiry slip ▲

STOP-COUNTERSINK
fits pneumatic or electric tools



Nonrotating head and positive lock adjustment in 1/1000-in. increments are features of this micrometer stop-countersink. With former, it is not necessary to hold stop unit with one's free hand to keep it from revolving. In addition, stop unit is fastened to operating gun so as to give gun a short overall length, minimize overhang and allow work in close quarters. Cutter takes up to 7/16-in. cutters and adjusts full range, from zero to maximum countersink depth. Made by **Severance Tool Industries, Inc.**, 761 Iowa St., Saginaw, Mich.

▲ For more details circle NED-2381 on enclosed inquiry slip ▲

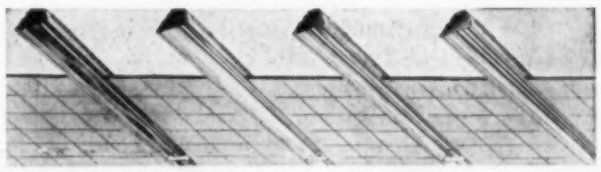
MOLDED CAPACITOR
obtains small value capacitances

Molded in thermosetting material, type CAS capacitor is designed to obtain small values of capacitance, as required in trimming applications, with extremely high "Q" for its range. It measures 13/32 x ⅛-in. diameter and is being made in standard values from 0.22-mmf to 2.2 mmf with plus or minus 20 per cent standard tolerance. Units meet JAN C-20A specifications in temperature coefficient and humidity. Made by **International Resistance Co.**, 409 N. Broad St., Philadelphia 8, Pa.

▲ For more details circle NED-2382 on enclosed inquiry slip ▲

FLUORESCENT LIGHT TROFFERS
in one, two and three lamp units feature wide variety of shields

Instant start operation and single pin lamps are features of four 75-w 8-ft T-12 Slimline models of fluorescent troffers comprising the new Uni-Flow line.



Models are available in one, two and three-lamp units, all in shallow and deep troffer types with or without flange. Photo shows (left to right) one lamp unit with Alzak reflector and one, two and three-lamp baked white enamel reflector units.

Shielding equipment available for these units includes metal and plastic louver shields; Albalite, Prismatic, Unilens and twinlens flat glass shields; and curved lens glass shielding with both ends closed, one end closed or both ends open. Miscellaneous shielding includes longitudinal shields for two-lamp shallow units, metal baffles for deep troffers and Fota-lite glass slides. Made by **Mitchell Mfg. Co.**, Dept. N-2, 2525 N. Clybourn Ave., Chicago 14, Ill.

▲ For more details circle NED-2383 on enclosed inquiry slip ▲

FOR Strictly IMPERSONAL INSPECTION CHOOSE AMES DIAL COMPARATORS

Ames Dial Comparators make the inspection of duplicate parts an extremely simple, rapid and accurate operation. Ames Comparators are strictly impersonal in their accuracy — the results being in no way dependent on the skill or judgment of the operator. The pressure of the gauging members against the work is mechanically determined and therefore uniform.
Check the Ames Dial Comparators shown — one of them may solve a Quality Control problem for you.

Ames No. 1 is an easily adjustable bench model dial comparator that measures objects up to 2" in cross section. This comparator is designated *Ames No. 1W* when equipped with a dead-weight and contact to ASTM specifications for measuring resilient materials.

Ames No. 2 is a compact bench model dial comparator for measuring sheet metal, glass, hard rubber. *Ames No. 2W* is similar, but is furnished with dead-weights and contacts to ASTM specifications for checking textiles, plastics, sheet rubber, etc.

Ames No. 13 features flat-ground, cast-iron base of ample size for using V-blocks and locating fixtures. The No. 13 can be fitted with a fine adjustment for close setting. Adjustable bracket holds any Ames Indicator.

Ames No. 130 is designed especially for inspecting comparatively large and odd-shaped parts. For this reason, the flat-ground steel base, the adjustable indicator support, and the upright column are proportioned to the user's requirements.

Send us your Quality Control job specifications, and we will supply complete details and proposal without obligation.

Representatives in principal cities B. C. AMES CO. 274 Amo Street Waltham 54, Mass.
Mfgr. of Micrometer Dial Gauges • Micrometer Dial Indicators

▲ For more details circle NED-2384 on enclosed inquiry slip ▲

Globe Loading Lift

Speeds Loading and Unloading

Trucks, trailers, railway cars, and cargo planes can be loaded faster and at lower cost with a Globe Loading Lift. What's more, material can be handled with less risk of damage to cargo or injury to workers.

The Globe Loading Lift is a simple elevating platform that eliminates the need for ramps, gangplanks, and "muscling" of cargoes. Platform recesses into floor or driveway in "down" position. Accurate control makes for easy flush-leveling to keep goods moving on an even plane.

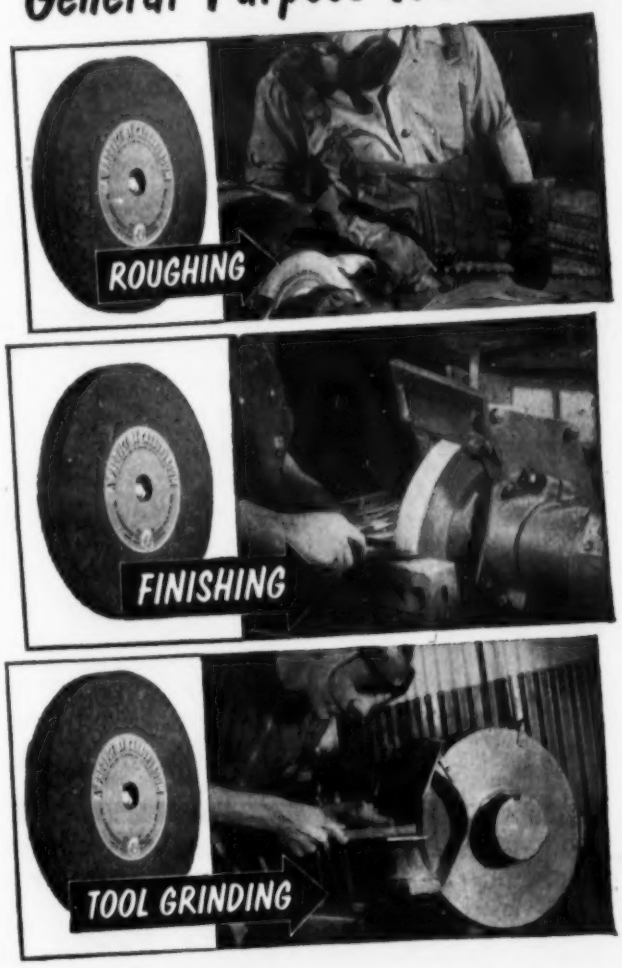
GIVE YOUR BUSINESS A LIFT!

A Globe OiLIFT will help you make the most of your manpower . . . speed production, save you money, help eliminate damage to materials and injury to workers. Write today for valuable information on Self-Leveling Ramps, Machine Loading Lifts, Industrial Truck Service Lifts, Production Lifts, etc. Ask for Bulletin NE-416.

GLOBE HOIST COMPANY • 1000 E. Mermaid Lane, Phila. 18, Pa.
Factories at Des Moines, Iowa, and Philadelphia, Pa.

▲ For more details circle NED-2385 on enclosed inquiry slip ▲

General Purpose Wheels . . .



General Purpose Wheels by CARBORUNDUM give you the widest possible range of abrasive tool versatility. Furnished in standard sizes for every known make of grinding machine, they improve the quality and quantity of work from veteran and inexperienced operators alike. In the cool cutting, long lasting V30 bond developed especially for general purpose work, "ALOXITE" aluminum oxide wheels are outstanding performers. They give you the ideal combination of abrasive grain, bond, grade and structure which provide highest grinding performance at lowest total cost.

This "tell-all" booklet is FREE!

ORDER FROM YOUR CARBORUNDUM DISTRIBUTOR TODAY. He's your best bet for complete stocks, prompt delivery, experienced counsel on latest developments in the field. You'll find him listed in the yellow pages under "Abrasives." Phone him today—it's to your profit!

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NAME AND TITLE
COMPANY
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Only CARBORUNDUM
TRADE MARK
offers ALL abrasive products...to give you the proper ONE

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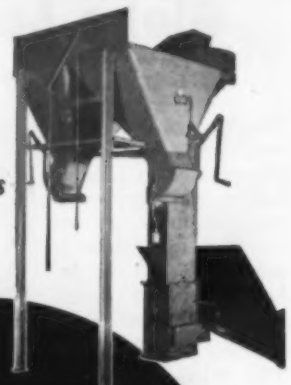
the
HANDY SANDY
gives you 7 advantages
THAT MEAN LOWER COST SAND HANDLING FOR YOU



fits any foundry

1. Puts the Sand Pile Overhead
2. Eliminates Shoveling and Waste Motions for the Molder
3. Increases Molders' Output
4. Savings From First Unit Pay for the Next Unit
5. Improves Condition of Sand
6. Takes Little Space
7. Low Cost — Simple to Install

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NEWAYGO ENGINEERING COMPANY
NEWAYGO, MICHIGAN

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and TRA-DEX gives you complete control of the Records

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GAGE PRESSURE SNUBBERS now treated to repel water

Originally offered to prevent damage to pressure gages by line pulsations, these pressure snubbers will now keep water out of gages used to measure pressure in air and oil systems. Water suspended as droplets in gas or oil is prevented from entering gage by silicone treatment of porous stainless steel filter disk which provides snubbing action. Droplets collecting on outside filter surface are removed by gravity. Treated disks are supplied at no extra charge on all snubbers for air and oil use. Made by **Micro Metallic Corp.**, 46 Sea Cliff Ave., Glen Cove, N. Y.

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AUTOMATIC DISPENSER for frequently used volatile fluids

Evaporation of frequently used volatile fluids as well as the time consuming action of removing and replacing bottle stoppers is reduced considerably by this spillproof stainless steel automatic dispenser. When unit is pressed down, fluid pumps up into dispensing dish. It is adjustable for 3 to 15 drops per stroke. Six-ounce polyethylene plastic bottle is unbreakable and inert to chemical action. Dispensers are being used for acetone to clean lenses, for ethyl alcohol to clean small parts and for lacquer thinner to do touch-up work. Made by **Menda Co.**, Dept. N, 279 N. Hill Ave., Pasadena 4, Calif.

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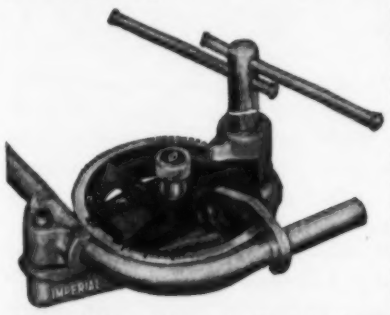
GEAR-TYPE TUBE BENDERS for tubing from 3/8 to 1 1/8-in. OD

Any type tubing, including hard-drawn copper and hard-temper steel types, can be bent by this compact gear-type tube bender. It can be positioned on tube at any point where bend is desired. Bends can be made even when one end of tube is connected. Device will make right or left hand, return, offset and right angle bends. It can be held by hand, clamped in vise or bolted to bench. Use of extension handle allows holding bender in pipe vise. Sizes are furnished for 3/8 to 1 1/8-in. OD. tubing. Made by **Imperial Brass Mfg. Co.**, 510 S. Racine Ave., Chicago 7, Ill.



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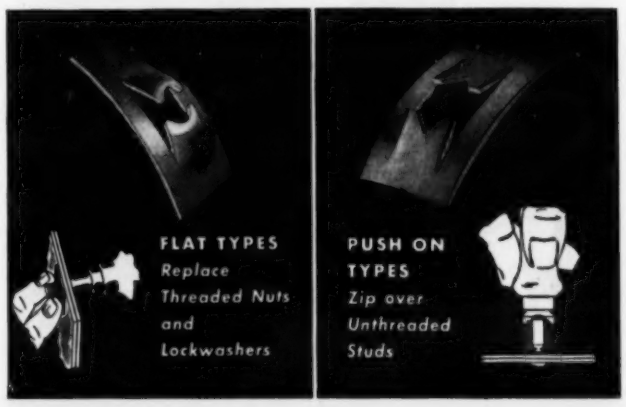
"TOPS" in Production Time-Savers!



FASTER, EASIER TO APPLY IN ASSEMBLY!

Whatever you make, or assemble, there's a SPEED NUT way to faster, less costly attachments in production! Industry's leaders in nearly every field have turned to TINNERMAN for better fastening engineering . . . lower production costs! Call your Tinnerman representative for data on our FREE Fastening Analysis service, or write to:

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Dept. 12, Box 6688, Cleveland 1, Ohio

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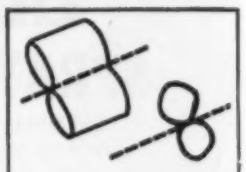
FOR FASTER, FINER GRINDS

BURUNDUM

Yes!! BURUNDUM gives you faster, finer grinds than conventional media, and here's why —

REASON ONE
BURUNDUM's unique, tubular shape.



Burundum's tubular shape means greater grinding contact area. No matter how the media falls contact area is greater than the pinpoint contact characteristic of spherical media.

REASON TWO
BURUNDUM's high specific gravity — 3.65. This high unit weight permits higher mill speeds—more contacts per minute—higher grinding consistencies.

REASON THREE
BURUNDUM's extreme hardness—9.0 on the Moh's Scale. This high hardness assures positive attrition and minimum wear of the medium.

TO GET MORE OUT OF YOUR MILLS, PUT BURUNDUM IN!

397-C
THE U. S. STONEWARE CO., AKRON 9, OHIO

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WHY Fenwal THERMOSWITCH® thermostats respond at the preset temperature you want (between —100°F and +1500°F) within the desired operating differential (can approach 0.1°F in a well-designed system).

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THERMOSWITCH®
Electric Temperature Control and Detection Devices
SENSITIVE...*but only to heat*

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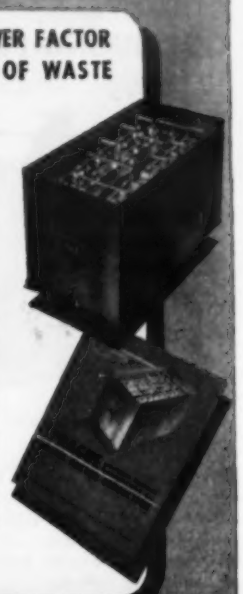
CUT COSTS AND CORNERS

BY CORRECTING LOW POWER FACTOR RIGHT AT THE SOURCE OF WASTE

Most inductive electrical equipment installed in a plant wastes money, money that *can be saved.* Some of it goes to supply non-productive magnetizing current. More of it goes to buy extra wiring, switches, and transformers to make up for this loss. Still more is wasted in reduced output through lost load. These wasted dollars can be saved by installing Sprague Power Factor Correction Capacitors at each piece of inductive electrical equipment. Write for free cost-saving guide, "Power Factor Correction" today.



SPRAGUE

Industrial Capacitor Div.
SPRAGUE ELECTRIC COMPANY
183 MARSHALL STREET
NORTH ADAMS, MASS.

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When you invest in a Burgess-Manning Acousti-Booth you are purchasing better communications for your office or plant. Good hearing means fewer errors . . . more work accomplished.

Burgess-Manning booths are pleasing in appearance . . . easy to clean and maintain.

Model 601 Wall Booth of wood construction.

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Model 210 Floor Booth of wood construction.

* *Results of studies by a prominent research organization.*

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Architectural Products Division
5970-C Northwest Highway, Chicago 31, Illinois

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LONGER Anode Life . . . With *Udylite* Ferrolum

Udylite Ferrolum Anodes are made with a STEEL core, clad with lead . . . the molecules of both metals are bound inseparably together. The anodes can't crack or peel no matter how they are bent or twisted. As a result, Ferrolum Anodes combine high, even electrical conductivity with the finest corrosion resistance . . . PLUS great rigidity and strength!

New Udylite Ferrolum Anodes offer exceptionally long life. That means long-range economy as well as low initial cost. They offer more uniform deposits too, with less build-up of insulating film and shorter plating time. Also, Udylite Ferrolum Anodes are much lighter in weight.

These new anodes are available in type I, Chemical Lead Clad, type II, Tin-Lead Clad, and type III, Antimonial Lead Clad.

Get the full story on these NEW Udylite Ferrolum Anodes from your Udylite technical man today, or write direct. THE UDYLITE CORPORATION, DETROIT 11, MICHIGAN.

Check these Advantages —

1. Economical cost.
2. Better and more uniform conductivity.
3. Great rigidity and strength.
4. Lightness in weight.
5. Less build-up in insulating film.
6. Longer Life.

THE UDYLITE CORPORATION
DETROIT 11, MICHIGAN
PIONEER OF A BETTER WAY IN PLATING

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SEALED TERMINAL has dielectric strength of 8000 v

Instruments, meters and various types of electric and electronic equipment are possible applications for this type of hermetic seal terminal, made with 3/16, 5/16 and ⅜-in. mounting holes. Melkorite metal-sealing thermosetting plastic, used to effect the seal, is capable of withstanding continuous temperatures of 200° C. Specifications include dielectric strength of 8000 v, 60 cps; corona starting voltage, 2000 v, 60 cps; air pressure test, 30 lb; terminal pull, 25 lb. Terminals are available on order and plastic material is available for custom applications. Made by **Melkor Research Laboratories, Inc.,** 11744 Detroit Ave., Cleveland 7, O.

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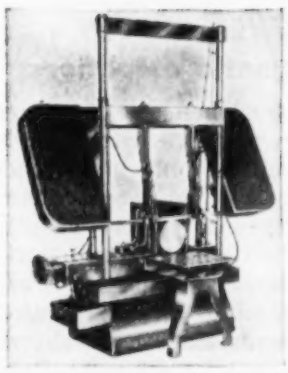
WELDING ROD & SOLDER for aluminum, zinc-base metals

Welding or soldering any grade of aluminum as well as any zinc-base metal such as pot metal or white metal is simplified with Chemalloy welding rod and solder. Product is merely heated beyond 800° F and rubbed on metals to be joined. It flows through the skin of aluminum and makes a weld stronger than aluminum itself. In turn, it will take soft solder and allow attachment of radio-electronic or electrical wires to aluminum. Product melts and flows without splatter, lumps or irregularities and is rust, corrosion, exposure and salt water-resistant. Developed by **Sightmaster Corp.,** P. O. Box 250, New Rochelle, N. Y.

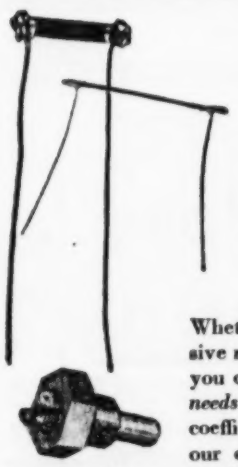
▲ For more details circle NED-2400 on enclosed inquiry slip ▲

LARGE CAPACITY BAND SAW utilizes four band wheels



Both large and small cutting jobs are possible on model J-24 band saw which features 24 x 24-in. cutting capacity. This large capacity is provided by embodying four band wheels in cutting head instead of two. Completely hydraulic in operation, saw is of all welded construction and can be fully or semiautomatically operated. Employment of truss gives extra rigidity to columns. Further specifications include 25-in. clearance under blade, vise which swivels 45 degrees in either direction, 16 ft 9-in. by 1¼-in. blade, 1-hp blade motor and ⅓-hp hydraulic motor. Cutting speeds are 60, 90 and 120 fpm. Made by **W. F. Wells & Sons,** North on 131 R2, Three Rivers, Mich.

▲ For more details circle NED-2401 on enclosed inquiry slip ▲



Used in this typical application for sensing temperature of hydraulic oil.

made right to work right BENDIX-FRIEZ

BENDIX-FRIEZ

high-precision thermistors

Whether you use these temperature responsive resistors in standard or special models, you can be sure of this. *They'll match your needs* for resistance values, size, temperature coefficient, mountings and quality. Made in our own plant under carefully controlled conditions, Bendix-Friez Thermistors know no equal.

STANDARD TYPES FOR IMMEDIATE DELIVERY

Size (inches)	@ +30°C.	@ 0°C.	@ −30°C.
.140 x .75	45.0 ohms	86 ohms	194 ohms
.040 x 1.5	12,250 ohms	26,200 ohms	65,340 ohms
.018 x 1.5	35,000 ohms	82,290 ohms	229,600 ohms

Write for details.

FRIEZ INSTRUMENT DIVISION of Bendix Aviation Corporation
1444 Taylor Avenue, BALTIMORE 4, MARYLAND
Export Sales: Bendix International Division, 72 Fifth Avenue, New York 11, N. Y.

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WORKS LIKE DYNAMITE!
but a safe cleaner for aluminum

the Original **GUNK** HYDRO-SEAL

world's most powerful solvent for cleaning carbonaceous tars, carbon, paint from pneumatic tools, internal combustion engine parts, diesel injector nozzles, oil burner nozzles, etc.

a synergistic Di-Phase solvent
27 times faster cleaning than lye

free of causticity and toxicity — safe to handle

self-emulsifying and self-scouring

extreme solvency — terrific penetration

brightens aluminum without etching, loss of weight or dimension

available in 5—30—55 gal. sz. ready to use Kits and 1 gal Rejuvenator size

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IMMEDIATE DELIVERY 1 GALLON OR A TANK CAR

CURRAN CORP. Mfg. Chemists LAWRENCE, MASS.

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The amazing desk-top OZAMATIC makes direct copies of almost anything typed, printed, written or drawn!

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WITH the amazing new compact OZAMATIC, you simply feed in your original copy of any letter, drawing, or report on ordinary translucent material. In a matter of seconds you have your first copy—*clean, dry* and *ready to use!* Letter-size copies at a rate up to 1,000 an hour . . . at a cost of less than 1½c each.

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"From Research to Reality."
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New THERMALINK

Automatic Electric

OIL PRE-HEATING UNITS

★ Integral adjustable thermostat eliminates wiring problems.
★ Adjustable temperature dial marked in degrees.
★ Available with both thermostat and motor control built into unit.
★ No relays or auxiliary controls needed.
★ Available with pipe-thread or flange header.
★ Wattages from 1000 through 7500.
★ Conservative watt-densities prolong life, minimize carbonization.

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ELECTRO-THERM INC. • SILVER SPRING, MD.

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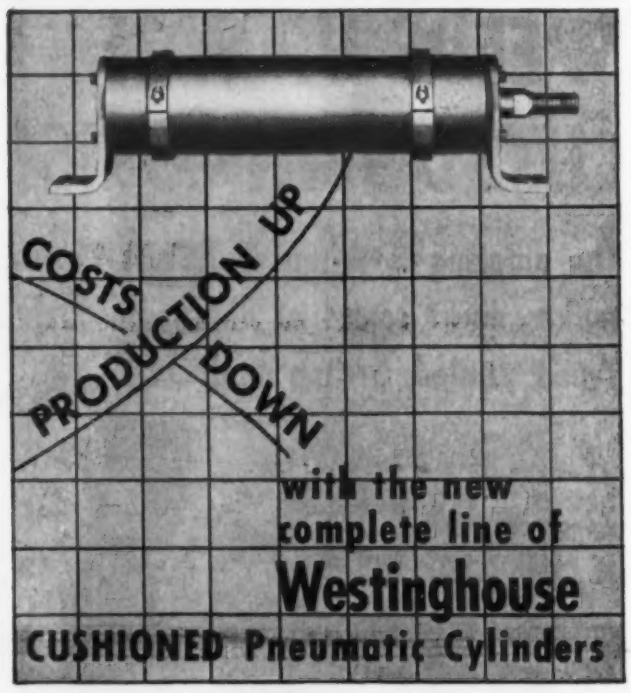

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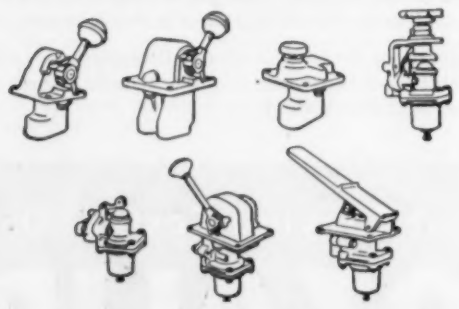
1. Diameters: 1½" to 8" . . . any required stroke
2. Cushioned adjustable stroke
3. Flange, foot, swivel, or trunnion mounting
4. Pressure type end seals against leakage
5. Rotating heads for easy installation
6. Solid construction
7. Stock heads, rods and barrels assemble to meet requirements
8. Packing cups of famous "WABCO" ® composition

. . . and a complete range of modern pneumatic controls

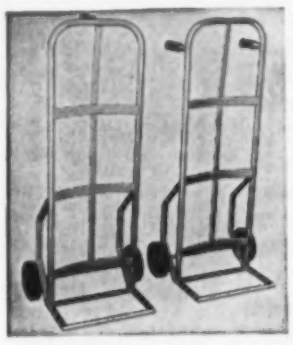


INDUSTRIAL PRODUCTS DIVISION WESTINGHOUSE AIR BRAKE COMPANY WILMERDING, PENNA.

Factory Branch: Emeryville, Calif. Distributors Throughout the United States . . . Consult Your Classified Directory. Distributed in Canada by: Canadian Westinghouse Co., Ltd., Hamilton, Ontario

For more details circle NED-2406 on enclosed inquiry slip

HAND TRUCKS for loads up to 500 lb



Line of two-wheel all purpose hand trucks for handling cases, cartons, barrels, packages, bags and drums includes capacities ranging to 500 lb. Frame is 1-in. high carbon steel tubing welded to reinforcing cross members. Units weigh from 23 to 28 lb, have rubber hand grips and either semi-pneumatic or solid rubber tired wheels with ball or oil retention type bearings. Feather edge steel nose plate facilitates sliding under load. Wheel sizes are optional. Made by **Indus Corp.**, 431-N N. Holmes Ave., Indianapolis 22, Ind.

For more details circle NED-2407 on enclosed inquiry slip

ILLUMINATOR-MAGNIFIER has 4-in. diameter 2X lens

A 4-in. diameter depressed 2X lens plus a long frosted 40-w light bulb combine to make this model No. 5 Magnalamp a highly practical illuminator and magnifier for visual inspection and close assembly work. Used on bench or as hand model, lamp is 8 in. wide, 10 in. deep and stands 12 in. high. Adjustable hood and handle detach from base for possible mounting to wall, machine or bench. Hood inside is glossy white while outside and base have black wrinkle finish. Made by **Owosso Engineering Co.**, Budco Div., 301 Clinton St., Owosso, Mich.

For more details circle NED-2408 on enclosed inquiry slip

DIRECT CURRENT POWER SUPPLY regulated by magnetic amplifier

A minimum 20,000 hours service life without failure is built into model S-715 regulated direct current power supply. Unit uses selenium rectifier, and regulation is accomplished by magnetic amplifier circuit. Major components except rectifiers and calibration resistors are hermetically sealed in enameled steel case. Output is rated at 300 v dc with less than 0.1 per cent ripple. Regulation is 1.0 per cent from zero to 200 ma output current, and for input, from 105 to 125 v. Nominal power frequency is 60 cycles, but regulation is maintained for frequency variations of plus or minus 10 per cent. Made by **Acme Electronics, Inc.**, Dept. N, 300 N. Lake Ave., Pasadena 4, Calif.

For more details circle NED-2409 on enclosed inquiry slip

Standard . . . or Special

• You can depend on Albion Industries to meet your most *exacting* requirements for rugged, dependable industrial casters . . . in dozens or thousands.

Albion produces better, yet more economical casters for every conceivable industrial operation. Investigate their advantages today . . . make Albion your *one dependable source* for casters and wheels.

ALBION INDUSTRIES, Inc.
Albion, Michigan

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50" wide conveyor GLUING MACHINE and COMBINING PRESS

60 years of dependable service

Handles webs or sheets. Thermostat control for hot glues. Patented dial control regulates coating of adhesive. Single adjustment for overall pressure of combining rollers.

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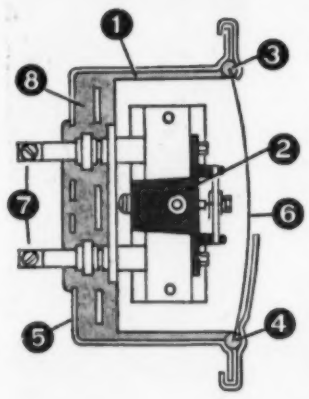
RUGGEDIZED METERS

to meet Sig. C. Spec. MIL-M-10304



8 PLUS Features

Extra "Ruggedized" Features

1. Movement shock-mounted and housed in rubber-lined case.
2. Movement supported by die-cast frame for strength and accuracy.
3. Glass rubber-grommeted and sealed to rubber lining of case.
4. Non-rigid mounting of glass increases resistance to shock.
5. Each meter designed and built to highest quality standards.

Extra Installation Advantages

6. Slight convexity of glass reduces chance of accidental breakage.
7. Terminals tapped and provided with binding screws to facilitate wiring.
8. Damage in wiring reduced by non-rigid mounting of terminals and flexible conductors.

Building rugged electric meters is not new to SUN . . . For over 20 years the automotive industry has depended on SUN as one of the largest "D'Arsonval-type" meter manufacturers—to produce rugged, tough meters for portable field instruments. SUN "Ruggedized" Meters not only meet Specification MIL-M-10304 (Sig.C.) —but also embody many *plus* features that make installation easier and faster. "Ruggedized "Meter Data Bulletin on request.

SUN "Ruggedized" Meters are available as D-C Volt Meters, Ammeters, Milli-ammeters and Micro-ammeters and also may be ordered as rectifier type A-C instruments.

6060 NED

SUN ELECTRIC CORPORATION
6389 Avondale Avenue, Chicago 31, Illinois

For more details circle NED-2412 on enclosed inquiry slip

INDIVIDUAL PROTECTION STATION . . . install anywhere

SAFELETS are on-the-spot protection either for your circuits or the equipment plugged-in. Used on assembly lines, test benches or for specific appliances, a Safelet can isolate a short circuit power interruption to this one receptacle . . . avoiding production stoppages. Employing HEINEMANN hydraulic-magnetic circuit breakers, Safelets can be turned ON immediately after the fault has been cleared . . . there is no waiting to reset.

Available in ratings up to 15 amps. or 1 HP, with or without pilot light, and in various female receptacle styles. WRITE FOR BULLETIN NO. 1010.

HEINEMANN ELECTRIC CO., 106 Plum St., Trenton 2, N.J.

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C-D-F MAKES IT...

The Grommet that Springs out and HOLDS TIGHT!

• The aircraft industry needs thousands of grommets for wires and cables passed through bulkheads. C-D-F offers this unique answer:

Fine weave canvas C-D-F Dilecto rolled tubing is cut into rings. Each ring is grooved and beveled on its outer diameter, then slit diagonally.

Result: Plastic grommets that are easily compressed and inserted by hand. The built-in tension of the tough Dilecto ring makes it spring outward, tight against the edge of the hole . . . cushioning...insulating...saving assembly time!

DILECTO is mechanically and dielectrically strong. Resistant to high heat, hot oil, excessive humidity. C-D-F sells it in sheets, tubes, rods in a wide range of grades . . . also handles complete fabrication on high speed machines. Write now for sample grommet and Dilecto catalog!

Continental-Diamond Fibre Company
NEWARK 30, DELAWARE

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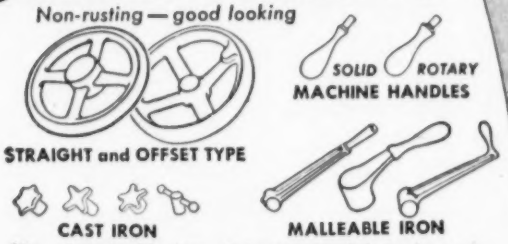
Dependable
MEASURING & CHECKING EQUIPMENT

and Now
HAND WHEELS, KNOBS, HANDLES
Cadmium Plated READY TO DELIVER
Non-rusting — good looking



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We also build jigs, fixtures, special tools and machinery. Send us your blueprints.

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IS THE IDEAL PACKING MATERIAL

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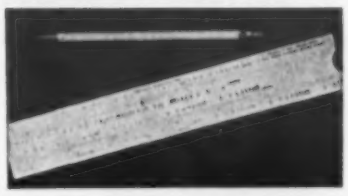
(1) Real dollar & cents savings
(2) Minimum inventories
(3) Substantial space savings
(4) Dependable supply

Test a "Silver" paper shredder in your own shop without obligation—Get complete details by writing *today* to:

INDUSTRIAL SHREDDER & CUTTER CO.
107 Mill Street Salem, Ohio

▲ For more details circle **NED-2416** on enclosed inquiry slip ▲

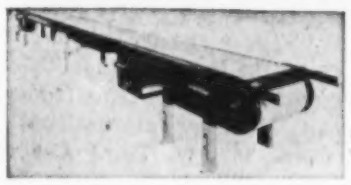
SHEET METAL SLIDE RULE
gives weight of various materials



Exact weight of flat sheet materials to aid in the production of stamped parts can be computed by this improved slide rule weight calculator. Offered free of charge, it has constants for giving the weight of various gages of sheet aluminum, copper, bronze, lead and steel. Only figures which must be known are the width of sheet or strip and pitch or number of lineal feet required for 1 to 100 pieces. Available from **Dayton Rogers Mfg. Co.,** 2822 Thirteenth Ave. S., Minneapolis 7, Minn.

▲ For more details circle **NED-2417** on enclosed inquiry slip ▲

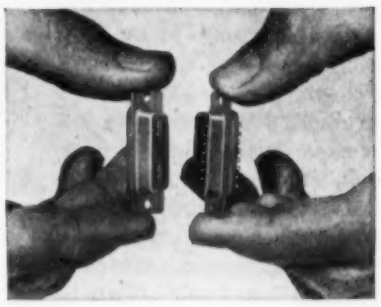
HORIZONTAL CONVEYOR
reversible unit has two bed types



Designed for long straight hauls, conveying cartons, boxes and bags and for use in assembly operations, receiving, packing or shipping, the horizontal Arr-O-Veyor is offered in 10, 14, 16, 20, 24 and 30 in. belt widths. Lengths range from 35 to 150 ft and motors from ¾ to 2 hp. Conveyor is a pre-engineered, permanently installed, sectional, reversible unit. It has separate drive and tail units with horizontal takeup. Roller or slider beds are available. Made by **Arrow Products, Inc.,** 414 Front Ave. N. W., Grand Rapids 4, Mich.

▲ For more details circle **NED-2418** on enclosed inquiry slip ▲

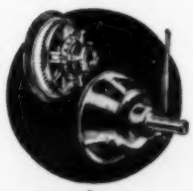
MINIATURE CONNECTORS
feature steel shell, Nylon insulator



Contact complement of series D miniature connectors ranges from 15 to 50 contacts, the smallest unit having overall dimensions of 1 17/32 x 31/64 x 27/64 in. with solder pot extension of 9/64 in. Major innovations include lightweight steel shell, comparable in strength to standard aluminum shells, and Nylon insulator. Latter provides high dielectric qualities for the gold-plated 5-amp contacts (No. 20 wire) which have conservative minimum flashover of 1500 v ac rms. Suitable for rack and panel mounting, connectors can be used as plugs on either side of assembly by adding junction shell having an integral clamp. Made by **Cannon Electric Co.,** 418 West Ave. 33, Los Angeles 31, Calif.

▲ For more details circle **NED-2419** on enclosed inquiry slip ▲

Vancouver's Fireboat



Stops Dock Holocaust

KERMATH MANUFACTURING COMPANY'S 550 H.P. ENGINES powered the fireboat that "hit the Vancouver dock fire like Niagra Falls". ROCKFORD POWER TAKE-OFF CLUTCHES transmit the power to the high-pressure fire pumps. Let ROCKFORD clutch engineers help develop power transmission for your heavy-duty equipment.

B-W ENGINEERING MAKES IT WORK
B-W PRODUCTION MAKES IT AVAILABLE
ENGINEERING BULLETIN SENT ON REQUEST

ROCKFORD CLUTCH DIVISION BORG-WARNER
312 Catherine Street, Rockford, Illinois, U. S. A.

ROCKFORD CLUTCHES

▲ For more details circle **NED-2420** on enclosed inquiry slip ▲

AMAZING! the Time and Money Saved WITH Spee-Dee WHITEPRINT OUTFITS

Make Exact Duplicates in as little as One Minute at less than 2c sq. ft.

Inexpensive and simplest of all print making equipment! Thousands in daily use. Enables anyone to make accurate, positive whiteprints from translucent originals. Saves up to 80% of commercial blueprint costs—quickly pays for itself! Makes photocopies, too. Just plug in. Uses diazo (moist or ammonia dry) process. Complete portable *Spee-Dee* outfits in 12" x 18", 18" x 24" and 24" x 36" models. Prices start at $55.00. Also a full line of 42" width capacity volume production whiteprinters at moderate prices.

10 DAY FREE TRIAL

Send today for Free Spee-Dee Brochure

PECK & HARVEY
Mfrs. of Whiteprint, Blueprint & Photocopy Equipment
5638 NORTH WESTERN AVE., CHICAGO 45, ILLINOIS

▲ For more details circle **NED-2421** on enclosed inquiry slip ▲

DIRT DOESN'T PAY DIVIDENDS

TORNADO® CLEANING DOES!

Motor unit becomes powerful blower to clean motors, machinery and equipment.

Dirt may be cutting into your profits just like this case of the *Federal Tool Corporation*. Molding light colored plastic, they found that a single particle of dirt in a cavity meant scrapping the entire piece.

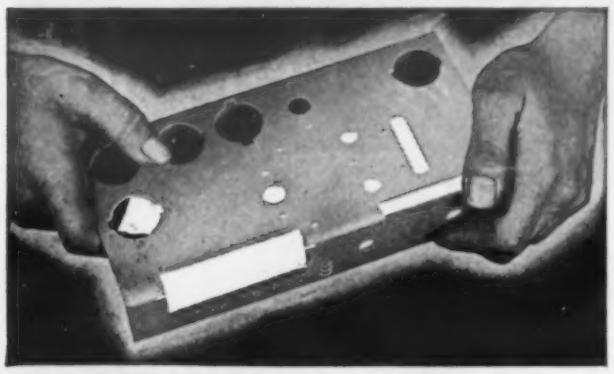
These costly scrap losses had to be stopped. How? With more efficient cleaning methods. Now they're using Tornado cleaning with the machine that pulls air at 300 M.P.H.

What's more, it picks up water, oils, scrubbing solutions and metal chips just as easily as dirt. It quickly converts to a blower or shoulder-type vacuum . . . cleans everything from floor to ceiling.

If you want to stop dirt from sharing in your plant profits write for Bulletin 600 today.

***BREUER* ELECTRIC MFG. CO**
5116 NORTH RAVENSWOOD AVENUE • CHICAGO 40, ILLINOIS

▲ For more details circle **NED-2422** on enclosed inquiry slip ▲



COPPER-PLATED PARTS STAY BRIGHT AND CLEAN

when Coated with WATER DIP #33

Here's a simple, low-cost finish that keeps copper-plated surfaces bright, free from fingerprints, chemically clean. It's M & W Water Dip #33. Work goes directly from the last hot water rinse into Water Dip #33—no need for rehandling and drying!

For the complete story on Water Dip #33, write for Bulletin #117, or let our M & W technical consultant discuss your requirements privately with you.

PIONEERS IN PROTECTION

MAAS & WALDSTEIN CO. 438 RIVERSIDE AVE. NEWARK 4, N. J.

Midwest Div.: 1658 Carroll Ave., Chicago 12, Ill. • Pacific Coast Div.: Smith-Davis Co., 10751 Venice Blvd., Los Angeles 34, Cal.

MANUFACTURERS OF INDUSTRIAL FINISHES

For more details circle NED-2423 on enclosed inquiry slip

★ This Webber test unit, designed for production and experimental testing, has a temperature range from +250°F., to −100°F. The pull-down to −100°F., is achieved in 45 minutes, and can be cycled from −100°F., to +250°F., in 30 minutes. 95% relative humidity is provided at temperatures between 75°F., and 95°F. Vacuum equipment can be added to simulate high altitudes. The test chamber, provided with a moisture-proof light for illumination, is 4½ cubic feet, 20 inches high, 20 inches wide, 20 inches deep. High and low temperatures are governed by a temperature controller with scale range from −200°F., to +400°F., with a 3 degree control point differential, 1½ degrees plus and minus. The humidity is regulated by a wet and dry bulb controller. Unit size is 60" long, 45" wide, 74" high. Apertures in left side of cabinet provide for electrical cables to energize equipment being tested. Webber offers a complete line of test units for various applications.

Write for more complete information

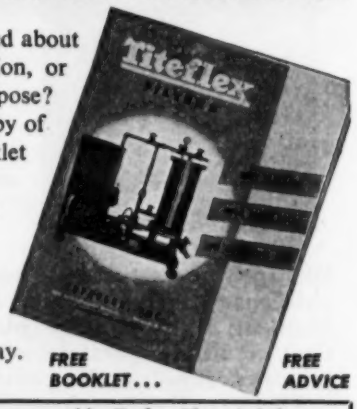
INDUSTRIAL FREEZER DIVISION
WEBBER APPLIANCE CO., INC.
A-2740 MADISON AVENUE • INDIANAPOLIS 3, INDIANA

For more details circle NED-2424 on enclosed inquiry slip

REDUCE FILTRATION TROUBLES!

Need a filter but worried about filtration costs, operation, or suitability for your purpose? Then get your Free Copy of the Titeflex® Filter Booklet right away.

Ask for a Titeflex Engineer to set you straight on costs and equipment for your special needs. No obligation. Mail coupon today.



FREE BOOKLET... FREE ADVICE

Businesses served by Titeflex Filters include...

Chemical • Distilling	Dry Cleaning
Electroplating	Paints & Lacquers
Soap • Cosmetics	Water
Pharmaceuticals	Food Processing
Wine • Beverages	Edible Oils
Machine Tool	Food Extracts

Titeflex

Let Our Family of Products Help Yours

MAIL COUPON TODAY

TITEFLEX, INC.
507 Frelinghuysen Ave., Newark 5, N. J.

☐ Please send me a copy of your Free Booklet about Titeflex Filters.

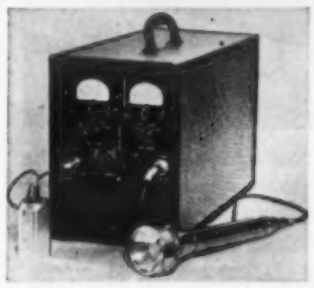
☐ We need the advice of a Titeflex Filtration Engineer . . . without obligation on our part.

NAME_____
TITLE_____
COMPANY_____
ADDRESS_____
CITY_____ZONE_____STATE_____

For more details circle NED-2425 on enclosed inquiry slip

DYNAMIC BALANCER

portable stroboscopic unit also synchronizes machine speeds



Analysis, evaluation and correction of vibration are carried out by the model 652 Vibratron portable dynamic balancing machine. It measures the amplitude and frequency of the vibration without computation and, by means of a stroboscopic light, discovers the source. Machine consists essentially of vibration pickup, multichannel electronic circuit, and stroboscopic lamp. Operation is on 110-v 60-cycle current.

Besides determining unbalance, it can be used to synchronize machine speeds and to detect undesirable vibration from inside or remote sources. Parts rotating in range from 600 to 40,000 rpm can be balanced. By means of a four-step switch in the amplitude circuit, meter readings can be obtained in full scale from 0.0001 to 0.1-in. peak-to-peak. Made by **International Research & Development Corp.**, 908 W. Third Ave., Columbus 8, O.

For more details circle NED-2426 on enclosed inquiry slip

TEMPERATURE CONTROLLER

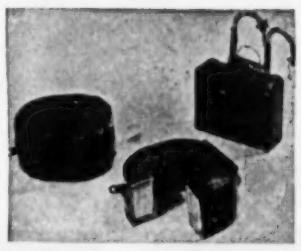
dual-temperature range instrument also controls blowers, fans, etc.

Intermittent use at different locations throughout the plant is afforded by this Guardsman portable temperature controller. Instrument plugs into wall outlet, then unit to be controlled is plugged into controller. By inserting instrument's thermocouple into oven, bath, thermocouple well, etc., true temperature will be indicated by upper pointer and can be controlled at any desired point by setting lower pointer to correct scale position with setting knob. Two power outlets provide for control of other factors, such as blowers, fans or agitators.

Models have dual scale range of 50 to 500° F, iron-constantan, and 0 to 2000° F, chromel-alumel. Six-ft thermocouples of each metal are standard equipment. Models JE, JEP and JEL feature magnetic amplification, dual-pilot light indication as to whether instrument is heating or cooling the controlled unit and 1700-w integral contactor which allows use of instruments directly on most load circuits without an external contactor. Made by **Taco West Corp.**, 527 N. Noble St., Chicago 22, Ill.

For more details circle NED-2427 on enclosed inquiry slip

INSULATING VARNISHES—"Deep-Cure" types combine high dielectric, chemical resistance



Thorough impregnation and complete curing result from the use of internal curing varnishes on windings like these

Insulating varnishes that cure throughout by heat-induced chemical polymerization eliminate the risk of wet, sticky interiors even in very deep windings. High penetration of these varnishes and complete solidification on curing combine to assure a thoroughly insulated, firmly bonded winding.

These varnishes are formulated in types offering dielectric strengths ranging from 1,700 to 2,200 volts per mil, and are adaptable to a wide range of applications including field and relay coils; radio, TV and air-cooled transformers; and high-speed armatures.

These internal curing varnishes offer good-to-excellent resistance to oil, moisture, acids and heat, and the majority of them have good resistance to alkalies as well.

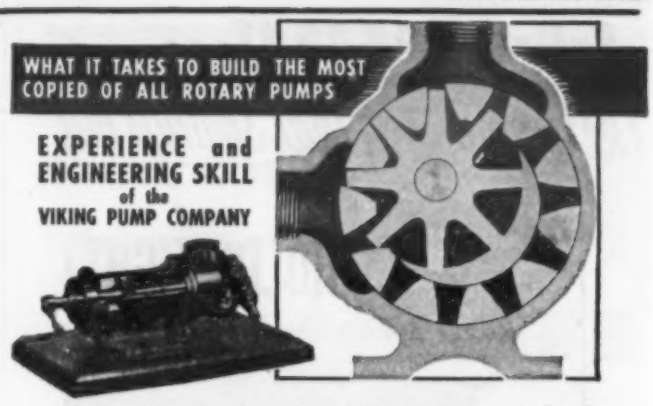
Varnishes can be applied by vacuum and pressure impregnation or by dipping. Brush application is used between layers as coils are being wound. Available in clear and black types, and adaptable to a variety of baking schedules.

Technical data sheets on internal curing varnishes available from: Sales Manager, Varnish Division, Irvington Varnish & Insulator Co., 14 Argyle Terrace, Irvington, N. J.

For more details circle NED-2428 on enclosed inquiry slip

WHAT IT TAKES TO BUILD THE MOST COPIED OF ALL ROTARY PUMPS

EXPERIENCE and ENGINEERING SKILL of the VIKING PUMP COMPANY



Slide rule, graph and drawing paper are basic in developing rotary pump ideas.

The answer to Viking leadership, however, is beyond these basic materials.

Viking's store house of ideas holds thousands of feet of micro-filmed installation facts and drawings. Their use, plus continual experimenting and testing of new ideas produces results that make Viking the most copied of all rotary pumps.

Send for descriptive folder 52SG today.

VIKING AN HONORED NAME IN PUMPING

Viking PUMP COMPANY Cedar Falls, Iowa

See Our Catalog in SWEETS

For more details circle NED-2429 on enclosed inquiry slip

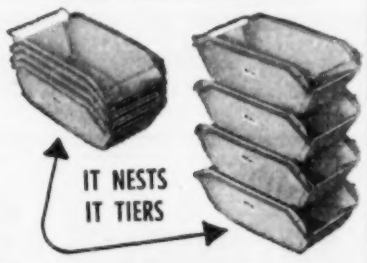
EASY DOES IT!

Ye old-time shop box jams and sticks! To pry one from the stack, A worker has to tug and pull - And darn near sprain his back!

But in the modern factory, They use the NESTIER Plan! Each box lifts out with greatest ease, SAVES TIME - THE BOX - THE MAN!

LET'S TALK ABOUT EASE OF HANDLING!

We've told you about the **major** advantages of the NesTier—how units **nest** when empty to save space—how they **tier** when filled, with contents of all units clearly visible and easily accessible . . .



We've also told you how easily NesTiers can be adapted to any conveyor system—how they are used for stockroom storage—how they speed the flow of materials and keep production moving.

But let's not overlook this important point:

NesTiers Do Not Jam or Stick!

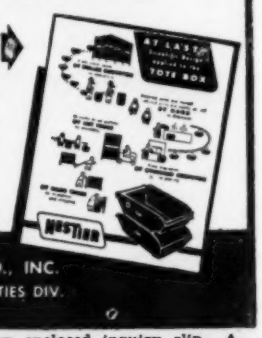
Unlike old-fashioned "shop boxes" NesTiers do not jam or stick when nested. Each box rests on the bails of the box beneath it, preventing complete telescoping. One or more NesTiers can be lifted out, **quickly** and **easily**, from a stack—saving wear and tear on boxes, eliminating costly repairs and replacements.

This is just one of the **many exclusive features** that make the NesTier System a "must" for efficient, economical materials handling.

Two standard sizes in heavy gauge steel, baked enamel finish or unpainted, oiled. Also in stainless, aluminum, galvanized or zinc plated expanded metal. All units are interchangeable.

WRITE FOR THIS BULLETIN NOW!

This important booklet describes all phases of the NesTier System. Our service includes complete engineering advice to systematize small parts handling in your plant.



NESTIER

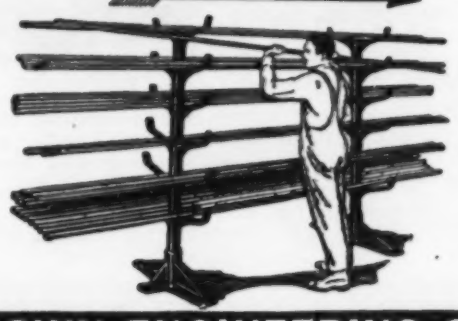
THE CHAS. WM. DOEPKE MFG. CO., INC.
ROSSMOYNE, O. METAL SPECIALTIES DIV.

For more details circle NED-2430 on enclosed inquiry slip

SPEEDS UP STOCK-ROOM SERVICE

The BROWN TIME-SAVING RACK saves the time previously lost end-hauling each bar of stock its entire length from the old-style, closed-side Rack, the Brown Rack requiring but a few inches of side movement. Each length, width and thickness of stock is displayed in goldfish visibility for instant selection. Workmen waiting for stock are served without waste of time, and returned to their production machines to turn out a maximum of output. Any time you require additional storage space, all you need do is to add more units. If you want to relocate it at any time, you can do so for it is unattached to the building. It is a simple, durable article made of metal in five styles. It can't burn, warp, sag or twist; depreciation is practically nil. SEND FOR BULLETIN No. 26-D DESCRIBING—

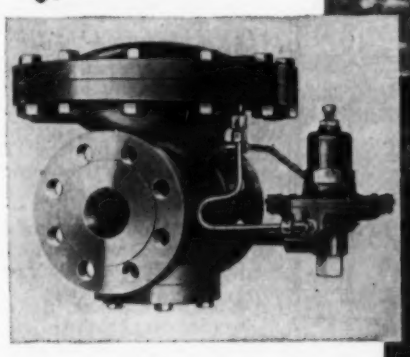
BROWN'S QUICK-SERVE RACKS



BROWN ENGINEERING CO.
129 N. THIRD ST. READING, PENNA.
RACKS • VISES • CLUTCHES • COUPLINGS

▲ For more details circle NED-2432 on enclosed inquiry slip ▲

THE Old Faithful OF STEAM PRESSURE REDUCTION



FISHER® TYPE 92A
PILOT OPERATED CONTROL VALVE

Power engineers everywhere have ok'd the FISHER TYPE 92A for steam pressure control! It's an accurate, compact, flexible, sturdy controller, designed, built and proved to meet the **most exacting requirements** for steam service.

WRITE FOR BULLETIN C-3

SINGLE SEATED TIGHT CLOSURE

Two interchangeable pilot assemblies available for high or low pressure service.

FISHER GOVERNOR CO.
MARSHALLTOWN, IOWA

▲ For more details circle NED-2433 on enclosed inquiry slip ▲

PORTELVATOR®
(THE HANDY HAMILTON PORTABLE ELEVATING TABLE)
LIFTS — LOWERS — LEVELS
TRANSPORTS

Eliminates "ganging-up" on heavy lifts. Reduces occurrence of industrial accidents. Eliminates the need for extra hands, extra trips.

STANDARD MODEL CAPACITIES TO 5000 POUNDS

SAFETY of OPERATION is inherent in the **PORTELVATOR** mechanical lift principle, which transmits power through worm, worm gear, and screw.

TAKE TIME TO LEARN THE DIFFERENCE
WRITE FOR BULLETIN P-508

THE Hamilton TOOL COMPANY
901 HANOVER STREET • HAMILTON • OHIO • U • S • A

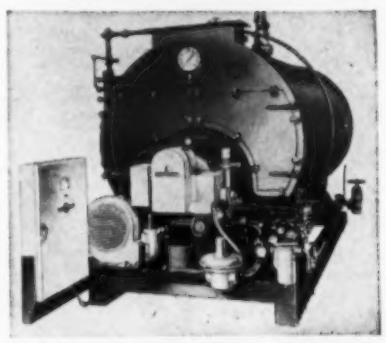
▲ For more details circle NED-2434 on enclosed inquiry slip ▲

CHEMICAL PROPORTIONING PUMPS for up to 30,000 psi operation feature alloy construction

Displacement of all liquid in cylinder at every stroke, is feature of these chemical proportioning pumps. Both stroke adjusting locking nut and indicating scale are stationary and adjustable while pump is running. Piston is reciprocated by positive mechanical linkage to crank arm. Powered by class I, group D explosionproof motors, pumps have interchangeable piston and cylinder assemblies of stainless steel, or other alloys, for 7500, 15,000 and 30,000 psi working pressures. Pumps can be furnished in simplex or duplex styles, latter of which has same pressure for each side, or in combination duplex style with each side for a different working pressure. Made by American Instrument Co., 8010 Georgia Ave., Silver Spring, Md.

▲ For more details circle NED-2435 on enclosed inquiry slip ▲

BOILER-BURNER UNITS for oil, oil-gas or gas are shipped as two mated units for assembly

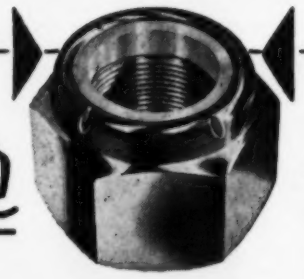


Available for high pressure steam and water in sizes ranging from 52 to 304 hp, this line of 'packaged' boiler-burner units develops 125 and 150-psi working pressures, low pressure 15-psi steam or 30-psi water, in sizes from 1,808,000 Btu to 8,400,000 Btu. Each unit consists of an Iron Fireman packaged burner unit for firing with No. 6 or lighter fuel oils, high or low pressure gas, or a combination of both fuels, and a Kewanee Scotch boiler, completely assembled with auxiliary equipment.

Burner portion of unit, including controls and forced draft air supply, is assembled, wired and factory tested. With all refractories factory mounted, burner is ready for installation in the boiler. Boiler is built to ASME code and is rated by Steel Boiler Institute code. Burner and boiler are shipped from respective manufacturer's plants. Full information from **Kewanee-Ross Corp.**, 120 Franklin St., Kewanee, Ill.

▲ For more details circle NED-2436 on enclosed inquiry slip ▲

Up-to-date



FASTENING INFORMATION

Have the answers at your fingertips before fastener problems arise. Write ESNA for the latest bulletin on self-locking Elastic Stop Nuts. We'll include the AN-ESNA conversion chart.

You'll find Elastic Stop Nuts' positive, vibration-proof protection can cut maintenance costs . . . insure that precise adjustments will hold true. The famous Red Elastic Collar prevents loosening due to vibration, keeps locking threads corrosion-free, provides for accurate bolt loading and seals against liquid seepage along the bolt threads. Elastic Stop Nuts are available in more than 3000 different types and sizes—all self-locking, vibration-proof and reusable.

WRITE now for ESNA's help with your present or future fastener problems. Address Dept. N15-1137.

ESNA Elastic Stop Nut Corporation of America
2330 Vauxhall Road, Union, N. J.

DESIGN HEADQUARTERS FOR SELF-LOCKING FASTENERS

▲ For more details circle NED-2437 on enclosed inquiry slip ▲

CUT LOADING TIME! 1 DOCK HANDLES THE FREIGHT OF 3

ROWE ADJUST-A-DOCKS
Eliminate Costly Hand Loading

1. Brings dock to level of any truck bed.
2. Speeds loading by fork and lift truck directly into carriers.
3. Eliminates dock hazards.
4. Floats at truck level.
5. Sturdy hydraulic finger-tip control.
6. Pays for itself in 30 days.

ADJUST-A-DOCK

LOOK into the SAVINGS you can make in freight handling with Rowe Adjust-A-Docks. WRITE FOR BULLETIN and complete information.

ROWE METHODS, INC.
2534-I DETROIT AVENUE • CLEVELAND 13, OHIO

▲ For more details circle NED-2438 on enclosed inquiry slip ▲

WHEN YOU NEED NEW TIRES FOR YOUR LIFT TRUCKS

Call your truck distributor

● When you entrust your lift truck repairs to your truck distributor, you know the finished repair job will be complete and satisfactory. But, how about new tires? Your truck distributor can re-equip your trucks with tires, too! He knows what's best for your trucks . . . that's why he stocks **Monarch Mono-Cushions.** Place all your truck service under one roof . . . let your truck distributor service them from seat . . . to **Monarch Mono-Cushion** tires . . . the tires that keep your trucks steady.

THE MONARCH RUBBER COMPANY
501 LINCOLN PARK
HARTVILLE, OHIO

▲ For more details circle NED-2439 on enclosed inquiry slip ▲

CAL-WIC WIRE CLOTH

In all Meshes, Weaves and Weights

Filtering, screening or grading—whatever your special job demands may be—Cal-Wic Wire Cloth is available in the right mesh, weave or weight to meet your requirements. Resistance to corrosion, abrasion and temperature extremes assured through the use of appropriate metals and alloys.

The long-wearing qualities of Cal-Wic Wire Cloth take on added importance during times like the present.

For additional information write or phone our nearest sales office.

EAST: Wickwire Spencer Steel Division, Clinton, Mass.
WEST: The Colorado Fuel & Iron Corporation, Denver, Colorado.
PACIFIC COAST: The California Wire Cloth Corporation, Oakland, Calif.

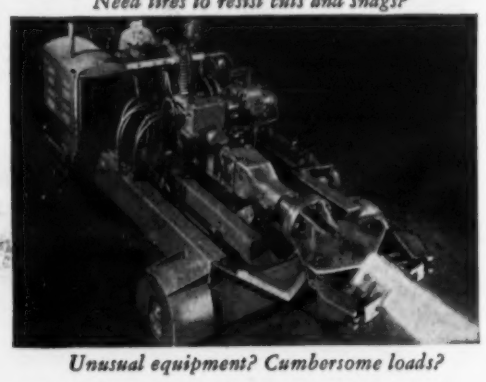
CAL-WIC INDUSTRIAL SCREENS
THE COLORADO FUEL AND IRON CORPORATION

For more details circle NED-2440 on enclosed inquiry slip

B.F.Goodrich

TWAP TIRE AND WHEEL ANALYSIS PLAN cuts materials handling costs

Need tires to resist cuts and snags?



Unusual equipment? Cumbersome loads?

How to save up to 50% on industrial tires and wheels

● Materials handling costs going up? Then perhaps you should be using different types of industrial tires and wheels. The right type tires wear longer, decrease maintenance costs, reduce repair time. It takes expert advice to pick the right tire for the job—advice you can get *free* with the B. F. Goodrich Tire & Wheel Analysis Plan. A trained BFG man studies your equipment, loads, hauling surfaces and any special problems. He makes impartial recommendations as to the right tread compound and design, type and size tire for your job. He gives maintenance tips, too.

You can be sure the TW Analysis man's advice will be unbiased, for B. F. Goodrich makes a *complete* line of tires.

Here's your opportunity to save as much as 50% on industrial tire and wheel costs with this free, no-obligation service. Just call the local BFG retailer or send in the coupon. B. F. Goodrich dealers sell and service a complete line of industrial tires.

A special TW Analysis Plan is available for manufacturers of industrial hauling equipment.

The B. F. Goodrich Co.
Department TW-210
Akron, Ohio

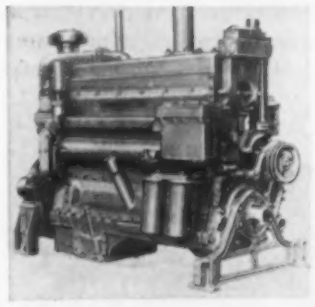
Please give me additional information on your new Tire and Wheel Analysis plan.

Name_____
Title_____
Company_____
City_____ State_____

RESEARCH KEEPS B.F.Goodrich FIRST IN RUBBER

For more details circle NED-2441 on enclosed inquiry slip

HIGH SPEED DIESEL ENGINE
offered in models for industrial, electric generation and marine use



Industrial, electric set and marine arrangements are available for the Cat D326 high speed diesel engine, a six cylinder model with 5⅛-in. bore and 6-in. stroke. Industrial unit has an intermittent output rating of 170 hp at 2000 rpm, while the electric set has a 12-hr rated output of 80 kw. It is available as a 50-cycle unit, with a 60-cycle unit to be offered later. Marine engine, on 24-hr continuous duty, produces 118 hp at 1600 rpm.

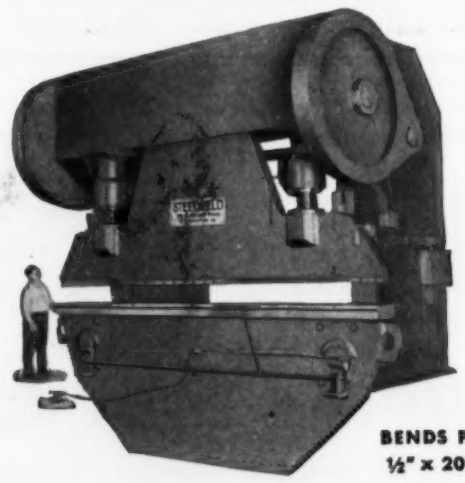
Engines incorporate fuel injection system with individual pumps and valves, the former being mounted directly adjacent to the cylinders they serve. Fuel lines are short and identical. Other features include heat resisting metal inserts in piston tops and valve seats, high fatigue resistance steel-backed aluminum main and connecting rod bearings, and oil jet-cooled pistons. Made by **Caterpillar Tractor Co.**, Equipment St., Peoria 8, Ill.

For more details circle NED-2442 on enclosed inquiry slip

COMMUTATOR UNDERCUTTER
portable unit cuts U or V slots

Completely portable model H Mica - Miller is an all around undercutter that can cut U or V slots and operates on either alternating or direct current. Universal 1/5-hp motor operates at 2800 rpm full spindle speed with standard head as illustrated. Heavy - duty head (picture insert), as well as small size are available. All are interchangeable, making it possible to use undercutter with saws or V-cutters ranging from 23/32 to 1¼-in. OD to undercut wide variety of commutator sizes. All three heads are equipped with depth-gages, the smaller two have slot guides and the heavy-duty head has roller supports. Made by **Martindale Electric Co.**, 1387 Hird Ave., Cleveland 7, O.

For more details circle NED-2443 on enclosed inquiry slip



BENDS PLATE ½" x 20'-0".

BUILT FOR HEAVY DUTY SERVICE

This big machine is one of a complete line of Steelweld Presses designed for heavy production work. Bending, forming, blanking, drawing, multiple-punching can be done quickly. Beds of long machines are made extra deep to eliminate deflections and assure straight accurate bends. Complete line for thicknesses to 1¼" and lengths to 20 ft.

STEELWELD BENDING PRESSES CATALOG No. 2010

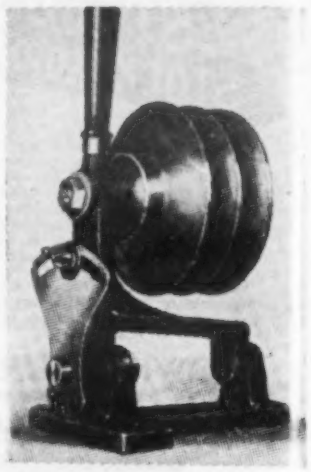
Send for free copy of catalog No. 2010.

THE CLEVELAND CRANE & ENGINEERING CO.
6647 East 281st St., Wickliffe, O.

STEELWELD PRESSES

For more details circle NED-2444 on enclosed inquiry slip

VARIABLE SPEED CONTROL



Variable speed control of V-belt and equipment up to a maximum 3 to 1 ratio is provided by this single lever controlled unit. Mechanically simple in design and sturdily constructed to withstand hardest service, models 1A and 2A Toledo variable speed controls have numerous unique features including: plain, smooth pulley, eliminating noise and vibration; stepless speed variation up to full 3 to 1 ratio; minimum pulley diameter are increased to transmit greater H. P. over entire range; new pulley design providing cylindrical bottom for V-belts which fixes minimum pitch diameter, preventing damage to belts and giving increased torque; single arm support, for easy belt application; large shaft, oilite bearings and lubricant reservoir; sector plate serving as dial indicator and additional locking medium; unusually attractive prices.

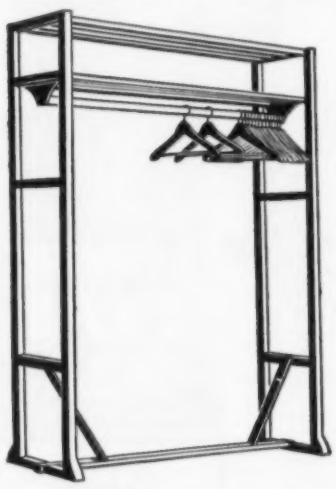
Wheel assemblies can also be purchased without mountings for application on machines providing built-in speed control.

If you have a variable speed control problem, either on plant equipment or on machinery you build for sale, investigate the Toledo variable speed control . . . you'll be interested in its efficiency and low price. Ratios as high as 10 to 1 are available. **The Toledo Timer Co.**, 2224 Albion St., Toledo, O. Advt.

For more details circle NED-2445 on enclosed inquiry slip

Checkerette

This "knock-down" wardrobe rack answers almost any "wraps" problem, because it can be set up anywhere in a few minutes without nuts, bolts or tools . . . can be disassembled and stored in small space when not in use. It is ideal for installation near point of work, occupies only 1' x 4' floorspace; is ideal for company cafeterias, offices, laboratories and meeting rooms.



It will hold wraps by day and shop coats at night and keep both aired and dry.

Modern, efficient designs, welded steel construction, rigid in use (all members held under tension).

Write for Circular CT 08

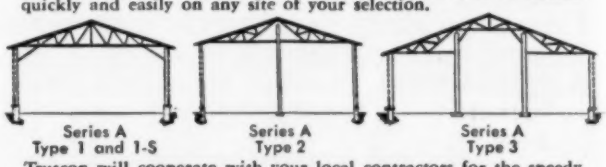
VOGEL - PETERSON CO.
624 So. Michigan Ave., Chicago 5, Ill.

For more details circle NED-2446 on enclosed inquiry slip

Here's An Idea That May Save You Thousands of Dollars!

Buy Truscon Ready-Made Steel Buildings Assembled for Your Individual Needs

Standardization and streamlining of production are the keynote to efficient, profitable operation. Meet today's needs for adequate manufacturing and storage facilities with Truscon Ready-Made Steel Buildings. They are made by the nation's largest manufacturer of steel building products. These standard-unit, prefabricated structures can be combined in innumerable ways to form buildings for many purposes. Features include fire resistance, insulation, permanence, ease and speed of erection, low upkeep, low cost and high investment value. They can be dismantled and re-erected quickly and easily on any site of your selection.



Series A Type 1 and 1-S — Series A Type 2 — Series A Type 3

Truscon will cooperate with your local contractors for the speedy erection of these "any-purpose" Truscon Steel Buildings.

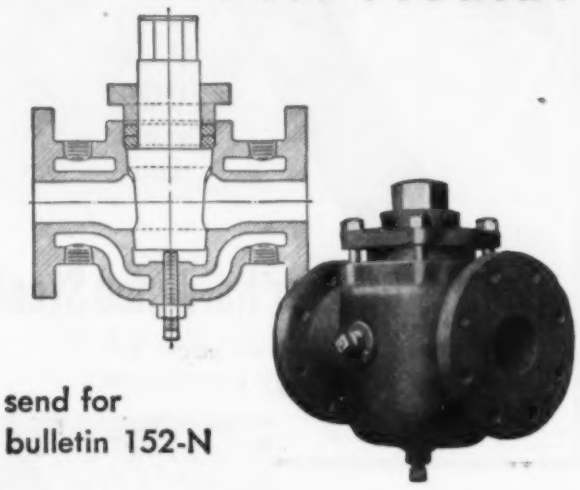
FREE BOOK! Write for free booklet on Truscon Ready-Made Steel Buildings. It shows actual installations and mechanical details, to help you develop your plans.

TRUSCON STEEL COMPANY 1096 Albert Street Youngstown 1, Ohio
Subsidiary of Republic Steel Corporation

For more details circle NED-2447 on enclosed inquiry slip

Now—

JACKETED FITTINGS in *Ni-Resist*



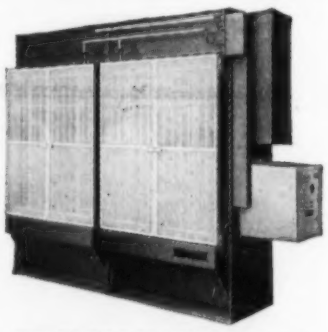
send for bulletin 152-N

Parks-Cramer Company
FITCHBURG, MASSACHUSETTS

▲ For more details circle NED-2448 on enclosed inquiry slip ▲

50 MILLION CFM of Super-Clean Air ...by *Electro*-MATIC

ELECTRO-MATIC* electronic precipitators now installed in the U.S. furnish this huge volume of *super-clean* air for industry, business, public buildings and institutions. Widely recognized for superior performance and economical maintenance, AAF's ELECTRO-MATIC provides highest efficiency collection (from smoke to largest air-borne material) . . . combined with fully automatic operation and self-cleaning features. Unit construction in many sizes readily adapts this filter to most air volume requirements. Request full information from your nearby AAF representative or write for Engineering Bulletin No. 250-E.



*ELECTRO-MATIC Automatic electronic precipitator.

Today's Best Buy is Better Air!

American Air Filter
COMPANY, INC.
391 Central Ave., Louisville 8, Ky. • American Air Filter of Canada, Ltd., Montreal, P. Q. • Pacific Division Office, San Francisco, Cal.

▲ For more details circle NED-2449 on enclosed inquiry slip ▲

SINCE 1891 Taylor LAMINATED PLASTICS

Look Behind this Symbol...

...and you'll find a reputation for quality products unsurpassed in the laminated plastics industry. You'll find, too, all the plus values of Taylor *Full-Line* Service—how you can obtain from *one* supply source, a complete line of Taylor Vulcanized Fibre, Taylor Insulation, and Phenol, Melamine and Silicone Laminates in a wide variety of grades—in sheets, tubes, rods, strips and coils. You'll find a dependable source of supply, too, for precision-made parts fabricated to your specifications. In addition to these advantages, Taylor's engineering assistance is available to help you solve your laminated plastics problem quickly . . . accurately. For complete data, write for catalog ND11.

SINCE 1891 Taylor LAMINATED PLASTICS

TAYLOR FIBRE CO.
NORRISTOWN, PA. • LA VERNE, CALIF.
VULCANIZED FIBRE • TAYLOR INSULATION
PHENOL • SILICONE • MELAMINE LAMINATES
FABRICATED PARTS

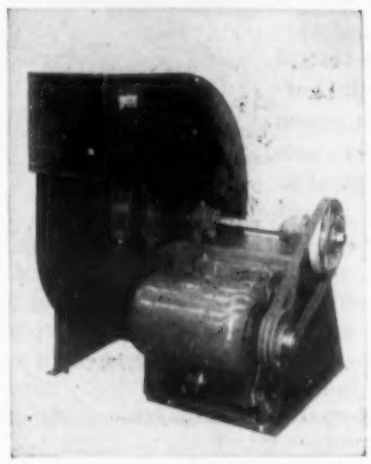
▲ For more details circle NED-2450 on enclosed inquiry slip ▲

GEAR GRINDER WHEELS in popular gradings and pitches

Accurately formed with proper root clearances to minimize root crushing, these Jerpbak-Bayless worm face profiled gear grinder wheels are available in popular gradings and pitches. Wheels require minimum of dressing and readily remount on machine because worm form profile is held square and parallel with the bore and face. Each wheel is marked with proper pitch and form for easy identification. Distributed by **Crown Tool & Supply Co.**, 153 Bell St., Chagrin Falls, O.

▲ For more details circle NED-2451 on enclosed inquiry slip ▲

INDUSTRIAL FANS built in three wheel types



Eleven sizes in line of industrial fans provide capacities ranging from 670 to 44,000 cfm and pressures up to 16-in. water gage. Air handling type wheel has backwardly-inclined blades with a wide volume and pressure range for exhausting smoke, fumes and light dusts. The heavy duty side-plated materials handling wheels can convey sawdust, granular materials and chips. Long-shavings wheel has no side plates and handles long, stringy fibers. Standard accessories include bolted and quick-opening access doors, flanged outlets and inlets and outlet dampers. Special coatings, metals and cooling are available. Made by **Westinghouse Electric Corp.**, Sturtevant Div., 200 Readville St., Hyde Park, Boston 36, Mass.

▲ For more details circle NED-2452 on enclosed inquiry slip ▲

DO YOU KNOW? You'd better watch your step! There is a new infrared-sensitive motion picture film which literally permits motion pictures to be made in the dark with infrared illumination and in the semidark without. Film can be used in 16 or 35-mm movie cameras. It's known as Kodak Spectroscopic I-N Film. Made by Eastman Kodak Co., Dept. E, 343 State St., Rochester 4, N. Y.

▲ For more details circle NED-2453 on enclosed inquiry slip ▲

Left— Union Special Style 20100 H Bag Closing Machine

Here's how to close MULTIWALL PAPER BAGS

FOR lower production costs ...stronger, neater closures ...ability to get out rush orders in a hurry, you can't beat Union Special Bag Closing Machines! Specially built to stand up under heavy production schedules, these machines provide the high output rates needed to meet modern competitive conditions.

In the Union Special line, it's easy to find the right unit to meet your particular requirements. ASK FOR RECOMMENDATIONS.

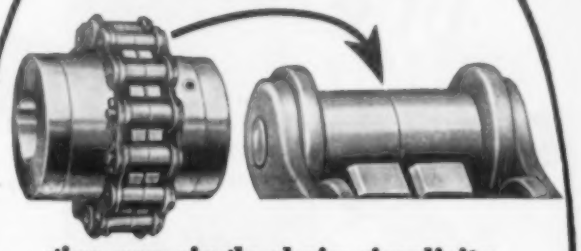
SEND FOR THIS BULLETIN!

Get your copy of this 16 page illustrated bulletin containing helpful data and charts on the complete Union Special line of bag closing machines. UNION SPECIAL MACHINE CO., 416 North Franklin Street, Chicago 10, Illinois

UNION SPECIAL

▲ For more details circle NED-2454 on enclosed inquiry slip ▲

Only LINK-BELT "RC" FLEXIBLE COUPLINGS...



give you single-chain simplicity, plus divided rollers

It's Link-Belt's exclusive design that makes the difference! No other Roller Chain Coupling offers the simplicity of single-width chain combined with these operating advantages: Equalize load, maintain proper balance at high speeds, adjust to reasonable misalignment and end float. Link-Belt's complete line of "RC" Roller Chain Couplings covers all sizes from fractional to 1000 hp. You can get all the facts from Folder 2363.

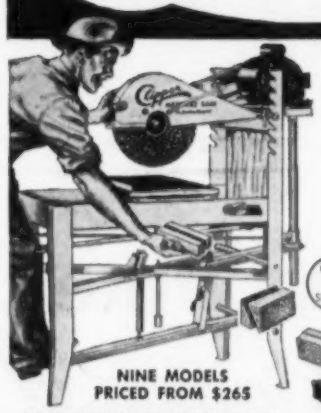
"RC" Couplings available in 30 sizes, ⅜ to 12 in. bore.

LINK-BELT COMPANY 12,798
Dept. 22, 307 N. Michigan Ave.
Chicago 1, Ill.

LINK-BELT "RC" FLEXIBLE COUPLINGS

▲ For more details circle NED-2455 on enclosed inquiry slip ▲

LOOK JOE !... Make These Cuts with a CLIPPER...Let's Stop "DOWN-TIME" Delays!



NINE MODELS PRICED FROM $265

Any SPECIAL SHAPES SKEWS, SPLITS, ANGLES, SOAPS

CUT IN SECONDS WITH A *DUSTLESS...* CLIPPER MASONRY SAW

PERFECTLY SMOOTH CUTS ELIMINATE HIDDEN FRACTURES, EXCESS MORTAR & DOWN-TIME

Speed REPAIR or CONSTRUCTION of your Furnaces, Kilns and Boilers by using a CLIPPER MASONRY SAW

DUSTLESS... MASONRY CUTTING

With the MODEL HD CLIPPER you can choose your cutting method...cut DUSTLESS (wet) in confined areas or DRY when DUST is not a problem. Remember too, there are NINE Clipper Models designed to perform with smooth simplicity and flexibility.

Free Trial

The outstanding policy of FREE TRIAL has been in effect since Clipper invented the world's first masonry saw. Only thru this CLIPPER FREE TRIAL are you guaranteed . . . ACTUAL TEST ON THE JOB . . . FULL SATISFACTION . . . NO OBLIGATION!

PATENTED CLIPPER FEATURES

AUTOMATIC BLADE PRESSURE — Makes your blades last longer... Because Equalizer Spring Automatically cushions blade pressure whether cutting HARD or SOFT materials; gives greater blade economy.

SELECT-A-NOTCH — One man easily adjusts Cutting Head to desired height...whether cutting 12" or 1" material. Operator's hands merely guide. Weight supported by rear Bar.

SAVE-A-BLADE DIAL — Just turn the Save-A-Blade Dial to the material hardness and the pressure Equalizer Spring automatically sets the tension—guarantees faster cutting and longer blade life.

Clipper — NATION WIDE DIRECT FACTORY SERVICE

FOR CUTTING CONCRETE—ASPHALT BUILDING FLOORS—STREETS—WALKS
CLIPPER CONCRETE SAWS...
5 MODELS—GAS OR ELECTRIC POWER

MANUFACTURING CO.
KANSAS CITY 8, MISSOURI
Cable Address: Clipper KC Mo.

PITTSBURGH	PHILADELPHIA
ST. LOUIS	SAN FRANCISCO
CLEVELAND	CINCINNATI
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HOUSTON	WASHINGTON, D.C.
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TEAR OUT AND MAIL!

CLIPPER MANUFACTURING COMPANY
Room 401, 2800 Warwick, Kansas City 8, Mo.
Send FREE Information and Literature on:
☐ NEW CLIPPER MASONRY SAWS ☐ CLIPPER CONCRETE SAW
☐ DUSTLESS Model HD ☐ FREE TRIAL
87 Ind.
NAME _____
ADDRESS _____
CITY _____ STATE _____

▲ For more details circle NED-2456 on enclosed inquiry slip ▲

UPS Hot Water Supply

DOWNS Costs All Along The Line

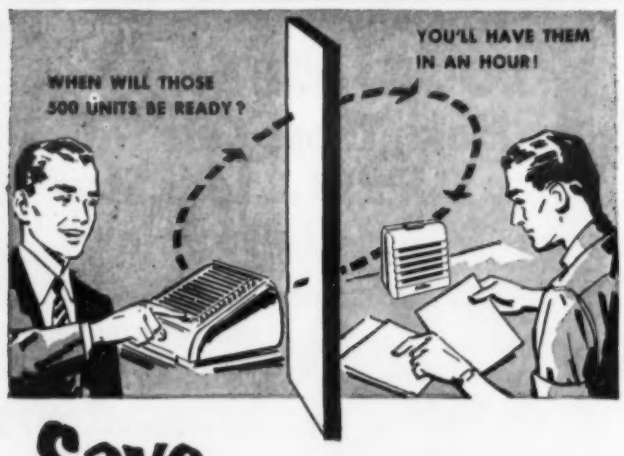
You'll get more hot water for your money by simply installing a General Instantaneous Water Heater as your primary or secondary source. Just tap heater into existing steam line near washrooms or processes where hot water is needed—no bulky storage tank, no excavating, no complicated piping. Operates on live steam up to 125 lbs. through shell . . . or with exhaust steam, or boiler water. Piping-hot, rust-free water supplied through seamless copper tubing—no maintenance worries.

Available in 12 space-saving sizes—6 to 300 gals. per min. Largest size measures only 15" x 120". Write for Catalog 60. General Fittings Co., Dept. I, 123 Georgia Ave., Providence 5, R. I.

GENERAL GF

TANKLESS AND INDIRECT WATER HEATERS AND HEATING SPECIALTIES

▲ For more details circle NED-2457 on enclosed inquiry slip ▲



Save Walking Time — *talk instantly!*

● Ever add up the cost of time wasted daily while shuttling about for information and instructions? With Executone you just push a button and talk—*instantly!* No walking, no waiting—*work goes on without interruption.* Maintenance men are located and dispatched *immediately*, reducing machine "down time." Roving employees are quickly located. Telephone lines are kept open for outside calls. Executone cuts costs, increases production, *pays for itself many times over!*

Send the coupon below for full details and description of special Executone features.

Mail Coupon Now!

Executone

INTERCOM SYSTEMS

EXECUTONE, INC., Dept. L6
415 Lexington Ave., New York 17, N. Y.

Without obligation, please send:
☐ The name of your local distributor.
☐ Booklet—"How Executone Helps Cut Costs."

Name_____

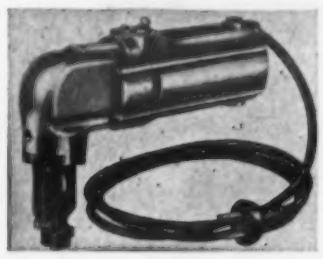
Firm_____

Address_____ City_____

In Canada—331 Bartlett Ave., Toronto

▲ For more details circle NED-2458 on enclosed inquiry slip ▲

PORTABLE NIBBLER
can cut 14-gage stainless steel



Capable of cutting through 14-gage stainless steel, cold rolled steel, galvanized iron and softer materials in proportion, without distortion on either side, the Little Wonder heavy duty portable electric nibbler can be used as a hand tool or mounted in a vise for bench operations. Minimum cutting radius is ⅞-in. Nibbler has a cast aluminum housing, universal motor, three-conductor 8-ft cord and weighs 7½ lb. All rotating parts are antifriction bearing mounted. Available from **Fenway Machine Sales Co.,** 20 S. Fifteenth St., Philadelphia 2, Pa.

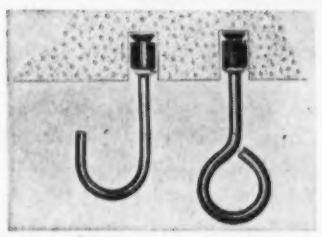
▲ For more details circle NED-2459 on enclosed inquiry slip ▲

HAND BARREL PUMP
empties 55-gal drum in 8 to 10 min.

Wide range of fluids including viscous oils, coolants, syrups and inks can be handled by model 101 hand barrel pump. Handle is turned one direction to drain barrel and in opposite direction to fill barrel. Fifty-five gallon drum can be emptied in 8 to 10 minutes. Spout which turns up to receive solvent for back flushing is threaded for ¾-in. ID hose connection. Combination 1½ and 2-in. bung nut accommodates ¾-in. suction pipe. Self-priming pump lists for $12.50. Made by **Engineered Equipment Co.,** Box 207-N, Warsaw, Ind.

▲ For more details circle NED-2460 on enclosed inquiry slip ▲

ANCHORING ASSEMBLIES
for pipe, conduit and guy wires



Two anchoring assemblies, one for mounting conduit and various types of pipe to masonry and the other for anchoring guy wires to masonry, consist of the pipe or eye bolt, lead sleeve and cup-shaped steel anchor. After insertion in the masonry, the lead sleeve is mushroomed with tamping tool. The steel anchor reinforces the lead sleeve. Rust-proofed assemblies for ½, ¾ and 1-in. pipe are offered, along with eyebolt assemblies (which must be rustproofed) with bolt lengths to 6 in. with a ½-in. hole diameter. Made by **Super-Grip Anchor Bolt Co.,** 3333-A N. 22nd St., Philadelphia 40, Pa.

▲ For more details circle NED-2461 on enclosed inquiry slip ▲

(trifluorochloroethylene)

loses none of its properties in temperatures as high as 390°F. Matter of fact, it runs the temperature gamut all the way up from –320°F. . . . a range of 710 fahrenheit degrees!

You'll find reason upon reason for liking this high polymer thermoplastic. For one thing, it has an excellent memory. Press it out of shape and it returns, once pressure is released, to its original form.

KEL-F has unusually high chemical and electrical resistance. Conducts little heat. Resists "wetting". Humidity, moisture and fungus bother it not at all.

LARGEST SINGLE SHEET

Besides rods, tubes, compression and injection molded forms, we are now making this versatile insulating material in the *biggest single sheets* ever known—up to **5 ft. discs.**

LOWEST COST EVER

Expanded production now enables us to offer KEL-F in all its forms at the *lowest prices* in history. We'll be glad to quote on your own requirements. Write today for KEL-F Brochure #202.

ELECTRONIC MECHANICS INC. 101 CLIFTON BOULEVARD, CLIFTON, NEW JERSEY

▲ For more details circle NED-2462 on enclosed inquiry slip ▲

A Better Drill For Hardened Steel

Long carbide end keeps cutting heat away from braze.

Write for Catalog Supplement No. 4

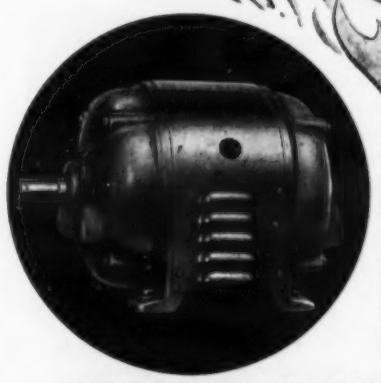
QUALITY CARBIDE TOOLS

Super TOOL COMPANY

21650 Hoover Rd., Detroit 13 • 5210 San Fernando Rd., Glendale 3

▲ For more details circle NED-2463 on enclosed inquiry slip ▲

ASBESTOS-PROTECTED!



ASBESTOS CANNOT CARBONIZE!

No motor is more durable than its windings. In U. S. Uniclosed Motors all windings are *asbestos-protected.* Motor life is tremendously increased because asbestos cannot carbonize and withstands highest temperatures.

UNICLOSED

Attractiveness of armored Uniclosed design adds eye appeal. ¼ to 250 h.p. Write for interesting descriptive Bulletin featuring Uniclosed Motors.

U.S. ELECTRICAL MOTORS Inc.
Los Angeles 54, Cal. Milford, Conn.

US MOTORS

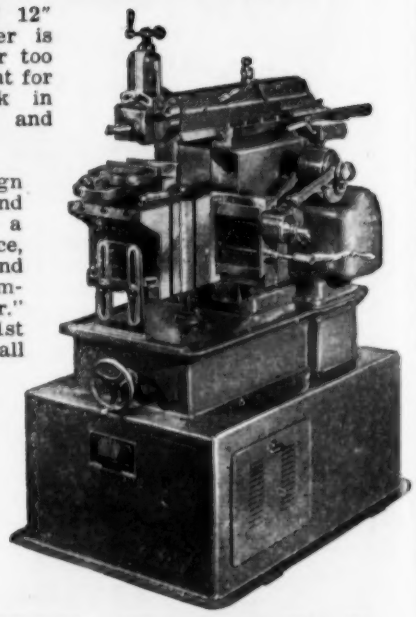
▲ For more details circle NED-2464 on enclosed inquiry slip ▲

Big Shaper Performance
Small Shaper Price

The SHELDON 12" Back-Geared Shaper is neither too big, nor too small. It is just right for most shaper work in most tool rooms and shops.

In weight, design features, capacity and performance, it is a "big shaper." In price, operating cost and floor space, it resembles a "small shaper." It is the logical 1st shaper for the small shop and a cost-cutting tool in multiple installations in large plants.

Write for Catalog.



SHELDON

CHICAGO U. S. A.

SHELDON MACHINE CO., Inc., 4215 N. Knox Ave., Chicago 41, Illinois

▲ For more details circle NED-2465 on enclosed inquiry slip ▲

with

SYNTRON

GRAVIMETRIC FEEDERS

Are you guessing at the material quantities in your blending and mixing processes?

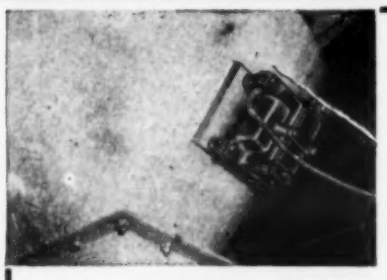
There's no reason why you should when it's so easy to get accurate control with a Syntron Weigh Feeder—such as the GFM-0-8 shown above, in a cement plant, weigh feeding small quantities of a chemical into a slow-setting, high-temperature special cement.

Small models for weigh feeding up to hundreds of pounds per hour—large models for weigh feeding hundreds of tons per hour.

Write for Free Brochure on Weigh Feeding

SYNTRON CO.
405 Lexington Ave. Homer City, Pa.

For more details circle NED-2466 on enclosed inquiry slip



Assure Free-Flowing Bins, Hoppers and Chutes with

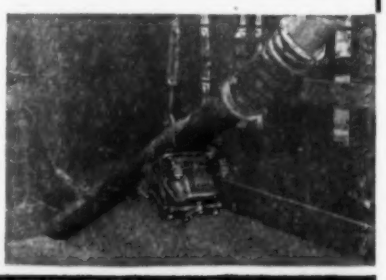
SYNTRON

"Semi-Noiseless"

ELECTRIC VIBRATORS

Now, Syntron presents a complete line of Semi-Noiseless Electric Vibrators for use in installations located close to workers where noise is a major factor.

Eliminate arching and plugging in bins, hoppers and chutes of any size and shape—whether made of steel, wood or concrete. WRITE TODAY for Free Catalog Folder.



SYNTRON CO.
405 Lexington Ave. Homer City, Pa.

For more details circle NED-2467 on enclosed inquiry slip

Speed up Production!

Feed Parts
- Single File
- In Oriented Position
- Automatically
- At Controlled Rates

SYNTRON

PARTS FEEDERS

INCREASE CAPACITY of grinders and presses, inspection and packaging devices, and other automatic processing equipment. Feed without damage, parts of most sizes, shapes and materials at reduced costs. WRITE today for Free Catalog Folder, or send details of your problem along with sample parts for testing to . . .

SYNTRON CO.
405 Lexington Ave. Homer City, Pa.

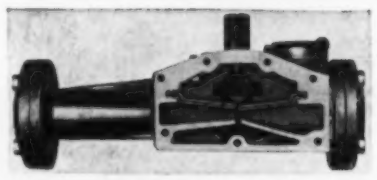
For more details circle NED-2468 on enclosed inquiry slip

CABINET BENCH
top can mount vise or power tools

Heavy top and rigid construction of the No. 999 cabinet bench provide working surface, plus storage space for dies, fixtures and tools. Unit is 36 in. wide, 24 in. deep and 34 in. high and has a 12-gage steel top for mounting a vise or small power tools. Detachable back and end stops are provided. Cabinet has an adjustable shelf and additional shelves can be added. The double door has a latch and cylinder lock. Mde by **Angle Steel, Inc.**, Dept. N, Plainwell, Mich.

For more details circle NED-2469 on enclosed inquiry slip

FUEL GAS MIXER
utilizes adjustable orifice

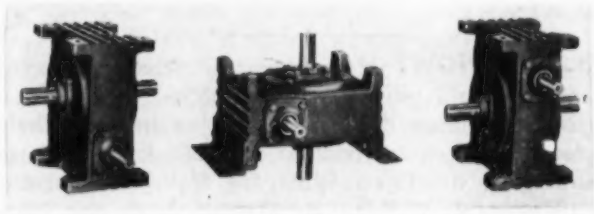


Built-in adjustable orifice of this Vari-Set mixer changes volume of automatically proportioned gas and air for any Btu output within the capacity of various sized mixers used in furnaces, ovens, kilns and other combustion equipment. Gas entrained by air stream is proportioned to form a perfect combustible mixture at all heating loads. Metering valve regulates pressure for operating control equipment and for burning mixed, natural or LP gas. In parallel hookups, equipment can operate under varying loads, and any unit may be changed easily without dismantling pipes, burners, mixers and other equipment. For units in series, individual burners can be adjusted without changing output of other units. Made by **Eclipse Fuel Engineering Co.**, 1002 Buchanan St., Rockford, Ill.

For more details circle NED-2470 on enclosed inquiry slip

SPEED REDUCER
mounts in any of three positions

Output shaft horizontal above input shaft, output shaft horizontal below input shaft or output shaft vertical are three positions in which this stock speed



reducer can be mounted. Top and bottom surfaces of the housing are machined for mounting. With output shaft vertical, common angle iron bracket can be furnished or made. The input shaft and worm are integral, alloy steel, hardened, ground and polished. The output shaft is ground high carbon steel and the worm gear is bronze. Both shafts are Timken bearing-mounted. Known as model 3L2, it is offered in nine different ratios, with horsepower capacity ranging from ½ to 3 hp. Made by **Eberhardt-Denver Co.**, 1416 W. Colfax Ave., Denver 4, Colo.

For more details circle NED-2471 on enclosed inquiry slip

MASONRY CUTTER
can be used for wet or dry cutting

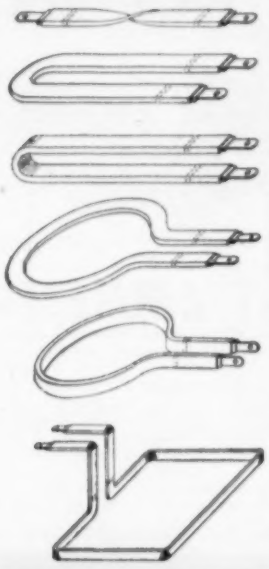
Made with 12, 14 and 16-in. diameter cutting disks, the No. 11-M-14-H masonry cutting machine can be used for dry or wet cutting of all kinds of hard or soft material, including glass and ceramic bricks, ceramic tubing, cement blocks and porcelain. The machine is equipped with a water circulating pump and water tank, the pump being operated by a separate ¼-hp motor. Cutting wheel is raised and lowered by hand wheel, and machine is moved in and out also by hand wheel. A table with T-slots makes it possible to screw attachments on the machine for angular cutting or clamping. Made by **Eisler Engineering Co.**, 753 S. Thirteenth St., Newark 3, N. J.

For more details circle NED-2472 on enclosed inquiry slip

SYNTRON

Thin—Flat

ELECTRIC HEATING ELEMENTS



For rapid, uniform heating of plates, pipes, platens, kettles, tanks, ovens, dies, dryers and ducts, by direct or indirect immersion or contact.

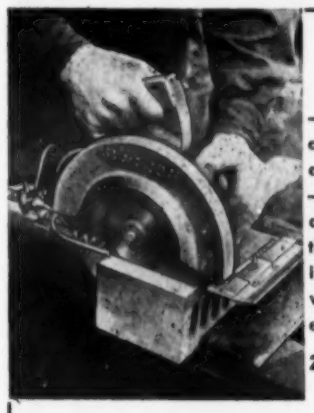
Available in two widths—in lengths from 9" to 124" and in most any volt and watt combination, the latter depending upon the application.

Can be furnished in various shapes—both their design and construction lend to flexibility in forming.

Write for literature—or send us the details of your heating problem.

SYNTRON CO.
405 Lexington Ave. Homer City, Pa.

For more details circle NED-2473 on enclosed inquiry slip



New, Dual V-Belt Drive

—eliminates gears . . . there are no gears to strip or wear and require costly replacement—gives velvet-smooth operation without gadgets . . . there is no 'bucking' or 'jerking' that damages work—provides 'cushion' action that adds extra life to the motor.

2 11/16" Cut 8½" Blade
6000 RPM Blade Speed

SYNTRON Portable

ELECTRIC SAW

Dual V-Belt Drive permits a faster drive for smoother, cleaner cutting of wood, brick, tile, etc. Its high speed, 6000 RPM Full Load Blade Speed, feeds the blade in—no need to push or ram—gives ease in handling that means less fatigue. There's no need to "work" a Syntron Saw—it works for you. Here is the saw that is built for hard service—it's no toy. It's made of tough aluminum and steel stampings with a powerful, full ball-bearing motor that develops up to 1½ H. P.

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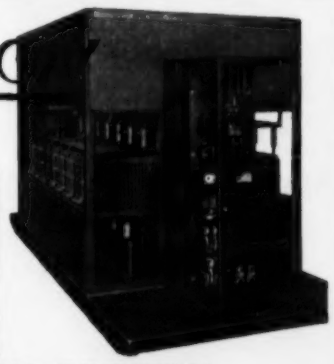
SYNTRON CO.
405 Lexington Ave. Homer City, Pa.

For more details circle NED-2474 on enclosed inquiry slip

SYNTRON



One of two 300 KW, 285 volt d-c Selenium Rectifier Units providing the d-c power requirements of a large coal mine.

SELENIUM RECTIFIER

POWER CONVERSION UNITS

Heavy Capacity Equipment
For Changing High Voltage AC to DC

They are designed for industrial applications such as supplying constant voltage power for DC mining, elevator, machine tool and crane motors. An economical means of obtaining DC power for the excitation of synchronous motors, magnets, magnetic chucks, arc lights, etc. They provide 125 volt to 550 volt direct current. Selenium Rectifiers provide—low installation, maintenance and operating costs, high efficiency and good regulation.

The basic unit consists of three phase, insulated transformer and selenium rectifier stacks enclosed in properly ventilated metal casing. Three KW and smaller single phase, small capacity units are also available.

Write for FREE Catalog Folder

SYNTRON CO.
405 Lexington Ave. Homer City, Pa.

For more details circle NED-2475 on enclosed inquiry slip

WITH A COLUMBIA

TONG TEST AMMETER

There is no other instrument like a Tong Test—it measures both A.C. and D.C. Readings are made instantly and accurately.

These outstanding features are yours when you use a Tong Test Ammeter:

- No breaking of circuit
- Operated with one hand
- Safe and convenient to operate
- Light weight—low price
- Scale ranges up to 1000 Amperes
- Voltage attachment available
- Five types to accommodate cables up to 3⅞", bus bars up to 4½" x ½"

Write for Tong Test Bulletin ND-400

COLUMBIA ELECTRIC MFG. CO.
4525 Hamilton Ave., Cleveland 14, Ohio

For more details circle NED-2476 on enclosed inquiry slip

. . . an adjustable Precision Feed Controller

. . . retards the feed speed for ANY PORTION or for ALL of the feed-travel

MAKES EVERY OPERATOR AN "EXPERT"

- Applicable to any feeding mechanism where precision control is desirable.
- Controls the pressure at work surface or at any stage of penetration or approach.
- Increases tool life . . . tools require less frequent sharpening.
- Reduces work rejects . . . insures uniformly clean, high quality work even by the inexperienced.
- Adjustable for from 1 to 1000 lbs. retarding pull. . . . Completely self-contained unit . . . standard unit available in 2", 4", 6" and 8" stroke. Special intermediate strokes obtainable up to 9". . . . Installed by simple bracket mounting . . . actuated by moving element of feed or feed table . . . virtually fool-proof. Inexpensive.

Write for informative bulletin DC-208-A.

NATIONAL PNEUMATIC CO., INC.
125 AMORY STREET, BOSTON 19, MASS.
NEW YORK PHILADELPHIA CHICAGO DETROIT

NP "POWER-CHECK" precision FEED CONTROLLER

* Trade Mark

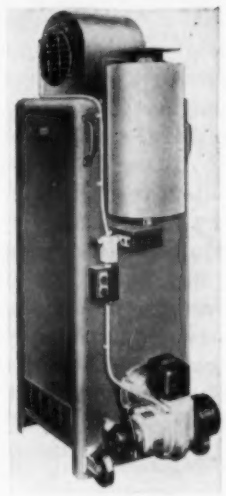
For more details circle NED-2477 on enclosed inquiry slip

LUBRICATION SYSTEM
large reservoir has warning device

Improved Oil-Mist lubricators for machine bearings are available with 1-gallon oil reservoirs and built-in automatic warning switches. Model 4958 is wired with a normally-open switch which makes contact when oil level goes below 23 oz, setting off a red light and/or horn, while model 4859 has closed switch which breaks contact when the oil level goes below 23 oz and shuts off the machine. Model 4960, with 12-oz reservoir, shuts off the machine as the oil level drops, while model 4961 either sets off a warning horn or flashes a red light when oil falls to the 2-oz mark. Made by **Stewart-Warner Corp.**, Alemite Div., Dept. NED-615, 1826 Diversey Pkwy., Chicago 14, Ill.

For more details circle NED-2478 on enclosed inquiry slip

PORTABLE HEATER
wheel-equipped portable unit has up to 168,000 Btu per hour output



Operating on counterflow principle of spraying heated air across floor to form 6-ft blanket of warmth, model VO-168 heat machine has an adjustable vent for permanent installation or portable on-the-job use. Used with flue and vented outside, unit heats small confined plants, garages, offices, warehouses, foundries, or trailers with output of 130,000 Btu per hour. Used without a flue, free heat is directed back into blower and discharged superheated for output of 168,000 Btu per hour. Unvented, it is practical for construction work, large drafty buildings, or on loading docks. It can also be used for deicing and drying applications. UL-approved gun type, pressure atomizing burner operates from detached fuel supply of No. 1 or 2 fuel oil, kerosene or diesel oil. Made by **Fageol Heat Machine Co.**, 5725-N Mt. Elliott Ave., Detroit 11, Mich.

For more details circle NED-2479 on enclosed inquiry slip

DO YOU KNOW? Metal transfer from one point to another and pitting on ignition points are practically eliminated by incorporating ventilating hole in center of tungsten contact or breaker point. These points were developed jointly by Holley Carburetor Co., Vancouver & P.M.R.R., Detroit, Mich. and Fansteel Metallurgical Corp., 2208 Sheridan Rd., North Chicago, Ill.

For more details circle NED-2480 on enclosed inquiry slip

CUT STEAM COSTS

SAVE FUEL and MAN-HOURS!

Thousands of Powermaster users are now getting top efficiency and low-cost steam or hot water for processing and heat after replacing cut-of-date boilers with this modern, fully automatic, "packaged" steam generator.

- High efficiency cuts operating costs as much as 40%
- Packaged design saves excessive installation costs
- Automatic operation frees engineer for other duties
- Mounted on steel base—no bricking required
- Delivered fully wired and factory-tested
- Prompt service by factory-trained men

15 to 500 HP—FOR HOT WATER AND FOR STEAM UP TO 250 P.S.I.—for light oil, heavy oil, gas and combination gas/oil firing. Built to A.S.M.E. specifications and approved by Underwriters' Laboratories.

FREE CATALOG MAILED PROMPTLY

ORR & SEMBOWER, INC.
930 Morgantown Rd. Reading, Pa.

For more details circle NED-2481 on enclosed inquiry slip

Aerovent FAN — EXTENDED SHAFT FAN

KEEPS MOTOR OUT OF AIR STREAM

Extended shaft may be water jacketed, if desired. Sizes 12" to 84". 2, 4 or 6 Blades.

For industrial applications where it is desired to keep the motor out of the air stream to meet Underwriter's specifications for exhausting explosive vapors. It protects the motor from high temperature air, corrosive fumes, or combination of obnoxious fumes and moisture.

Certified Ratings — PFMA

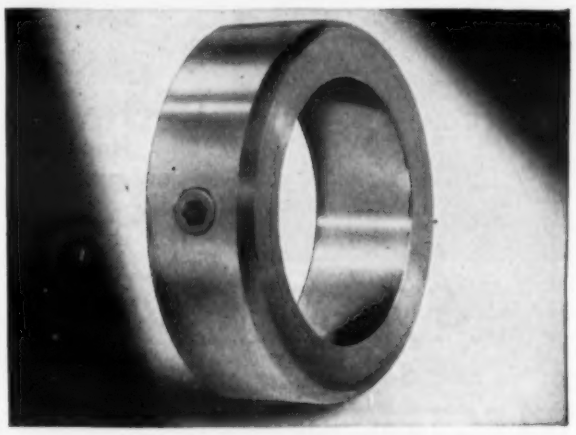
Other Models

Direct Connected, Man Cooling, Duct Type, Belt Driven, Pulley Driven. Sizes 12" to 144".

Write today for
ENGINEERING BULLETIN

AEROVENT FAN CO., INC.
ASH and BROWN STREETS, PIQUA, OHIO
Competent Sales Engineers in Principal Cities

For more details circle NED-2482 on enclosed inquiry slip



Standardize on standard HALLOWELL SOLID STEEL COLLARS

It's fast and easy to buy standardized, precision-made HALLOWELL Solid Steel Collars from your distributor's stocks. Just pick up the telephone and place your order.

42 stock sizes—for shafts from 3/16" to 3" inclusive—are positioned on the shafts by UNBRAKO Self-Locking Set Screws, the screws that won't work loose.

Write for descriptive literature and the name and address of your nearest HALLOWELL Industrial Distributor. STANDARD PRESSED STEEL CO., Jenkintown 24, Pennsylvania.

HALLOWELL
POWER TRANSMISSION DIVISION SPS
JENKINTOWN PENNSYLVANIA

For more details circle NED-2483 on enclosed inquiry slip

A-97

Precise PRESSURE Measurement

Sensitivity 0.2%

W&T PRECISION LOW PRESSURE GAUGE—FA-141

Ranges: All ranges from 0-10 inches water to 0-30 inches Hg.

Write today for Publication No. TP-27-A

WALLACE & TIERNAN PRODUCTS, INC.
ELECTRICAL MECHANISMS AND PRECISION INSTRUMENTS
Belleville 9, New Jersey . . . Represented in Principal Cities
In Canada, Wallace & Tiernan Products, Ltd.—Toronto

For more details circle NED-2484 on enclosed inquiry slip

Tell Us Your Production Problems . . . We'll Help You Solve Them

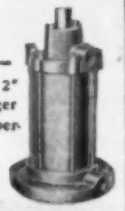
"LOGAN" HYDRAULIC CYLINDERS

SAVE TIME · EFFORT · MOTION Here's fast-acting, positive controlled power for all types of industrial applications.

LOGAN 750 SERIES

ROTATING TYPE—Seven standard sizes from 3" to 14" diameter bore. Larger sizes special to order. Maximum operating pressure 500 p.s.i.

NON-ROTATING TYPE—Eight standard sizes from 2" to 8" diameter bore. Larger sizes special. Maximum operating pressure 750 p.s.i.



Logan Manufactures 6,975 Standard Cataloged Items

Free Catalog On Request

AIR CONTROL VALVES CATALOG 100-4
AIR CHUCKS CATALOG 70-1
AIR CYLINDERS CATALOG 100-1
AIR and HYDRAULIC PRESSES CATALOG 51
COLLET GRIP TUBE FITTINGS CATALOG 44
HYDRAULIC CONTROL VALVES CATALOG 200-4
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SURE-FLOW COOLANT PUMPS CATALOG 62

Let Logan Engineers help you design your Air and Hydraulic Circuits.

LOGAN ROTOCAST® SERIES

7 STANDARD MOUNTINGS

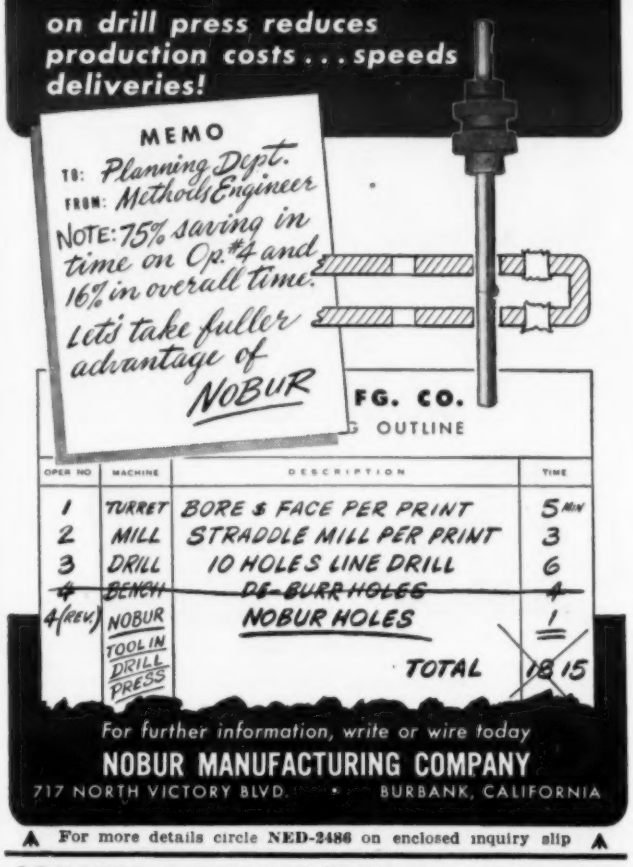
Sizes from 2" to 8" bore; any length stroke up to 8 feet. Other bores and lengths are special. Four piston rod end types. Operating pressures to 1500 p.s.i.

Logan SAVES TIME EFFORT MOTION
Air and Hydraulic Equipment
LOGANSPORT MACHINE CO., INC. 808 Center Ave. Logansport, Ind.

FLUID POWER SPECIALISTS SINCE 1916

▲ For more details circle NED-2485 on enclosed inquiry slip ▲

Deburring with NOBUR tool on drill press reduces production costs . . . speeds deliveries!



For further information, write or wire today
NOBUR MANUFACTURING COMPANY
717 NORTH VICTORY BLVD. • BURBANK, CALIFORNIA

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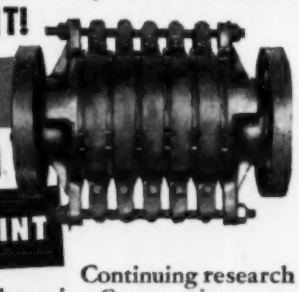
GREATER PIPE LINE MOTION CONTROL IN A MORE COMPACT, LESS COSTLY EXPANSION JOINT!



THE NEW FLEXON EXPANSION JOINT

Continuing research and development at Flexonics Corporation now make it possible for Flexon Expansion Joints to offer three basic advantages.

1. The face-to-face (over-all) dimension of a joint to handle a given amount of expansion has been reduced.
2. Lower expansion joint cost to handle a given amount of motion.
3. Maximum of motion commensurate with optimum life.

Complete specifications are given in the new Flexon Expansion Joint Bulletin. Write for your copy, today.

CMH

CHICAGO METAL HOSE
DIV. FLEXONICS CORPORATION
1343 S. Third Avenue, Maywood, Illinois
Manufacturers of flexible metal hose and conduit, expansion joints, metallic bellows and assemblies of these components.
In Canada: Flexonics Corporation of Canada, Ltd., Brampton, Ontario

▲ For more details circle NED-2487 on enclosed inquiry slip ▲

PUNCH PRESS GUARD custom built to specifications

Basket enclosure type guard is designed to meet safety requirements for punch presses of all sizes, makes and types. Front and side barriers can be tilted in or out as required, and vertical rods can be adjusted up or down to clear die straps, air nozzles, etc. Front barrier can be tilted up or taken off to remove damaged blanks from die. Corner locking knuckles firmly clamp round supporting bars without marring them. A clear-view front can be supplied for unobstructed view of die and work area. Made by **Searjeant Metal Products, Inc.**, Box 89, Mendon, N. Y.

▲ For more details circle NED-2488 on enclosed inquiry slip ▲

PUNCH & DIE HOLDER facilitates quick die change

Interchanging of punches and dies is facilitated by use of the 3½ Holder for Wales sheet metal fabricators which punch and notch up to ¼-in. mild steel from blueprints or operational sheets. Machined from cast aluminum for light weight and easy handling, holder fits into bed channel and need not be removed during punch and die changing. It will accommodate punches for various diameter round and shaped holes up to 3½ in. T-section design of holder arm provides torsional strength in all directions, and steel bushing in punch guide hole of holder head accurately guides punches and dies. Made by **Wales-Strippit Corp.**, 363 Payne Ave., North Tonawanda, N. Y.

▲ For more details circle NED-2489 on enclosed inquiry slip ▲

DO YOU KNOW? A complete and readable record of all receiving slips in shipping departments can be maintained with 20-lb portable 16-mm Flofilm microfilm camera. It occupies no more desk space than a portable typewriter and can be used by unskilled personnel. A perfect photo image of each receiving slip is obtained for any future reference. Camera made by Diebold, Inc., Flofilm Div., Norwalk, Conn.

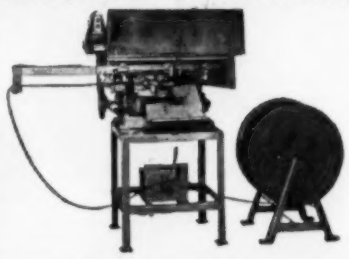
▲ For more details circle NED-2490 on enclosed inquiry slip ▲

Measure, Cut and Strip Insulated Wire IN ONE SPEEDY OPERATION ON ARTOS Automatic MACHINES

Does your production require cutting and stripping of insulated electric wire, cord, cable, etc.?

You can produce finished leads *much faster* . . . as many as 3000 per hour in 15-in. lengths . . . on this Artos Automatic Machine. Substantial time savings are obtained over the best manual or semi-automatic methods.

Operation is fully automatic—wire is taken from the reel, measured, cut to length and stripped at one or both ends. Unskilled help can handle the machine. Set-up is easy for different wire types and lengths.



MODEL CS-6E CAPACITY

FINISHED PIECES PER HOUR—From 3000 per hour up to 15 in. lengths to 500 per hour in 64-97 in. lengths.
MAXIMUM STRIPPING LENGTH—1½ in. at each end (greater stripped lengths are special).
MAXIMUM CUTTING LENGTH—97 in.
MINIMUM CUTTING LENGTH—2 in. (also as short as ⅞ in. under certain conditions).
TYPES OF WIRE HANDLED—Solid or stranded single conductor wires, parallel cord, heater cord, service cord, etc.
MAXIMUM WIRE SIZE—No. 10 stranded or No. 12 solid.

Other Artos Machines

The complete line of Artos automatic wire cutting and stripping machines will handle *cut lengths* from 1 in. to 60 ft., *stripped lengths* to 6½ in. at one end and 8½ in. at the other, *wire* from No. 12 to No. 000 gauge, and up to 3600 pieces per hour. Ask for recommendations on your problems.

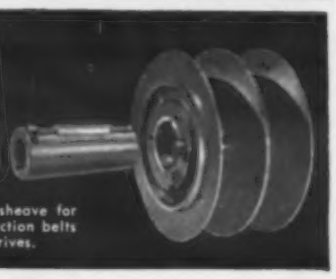
WRITE FOR BULLETIN

Get the complete story—write for Bulletin 35-C on Artos Model CS-6 machines.

Automatic Wire Cutting and Stripping
ARTOS ENGINEERING CO.
2751 S. 28th St. • Milwaukee 46, Wis.

▲ For more details circle NED-2491 on enclosed inquiry slip ▲

Texrope ...the Greatest Name in V-belt Drives



Stationary control sheave for use with Q or R section belts on 1½ to 30-hp drives.

NOW — Wide Range Vari-Pitch Sheave has 3 New Advantages!

1 Magic-Grip Mounting—Only one screw makes or breaks vise-like grip of sheave bushing on motor shaft. Fast, easy mounting.

2 Fast adjustment — Simply turn single adjusting screw, using lever rod. No fumbling with screwdrivers.

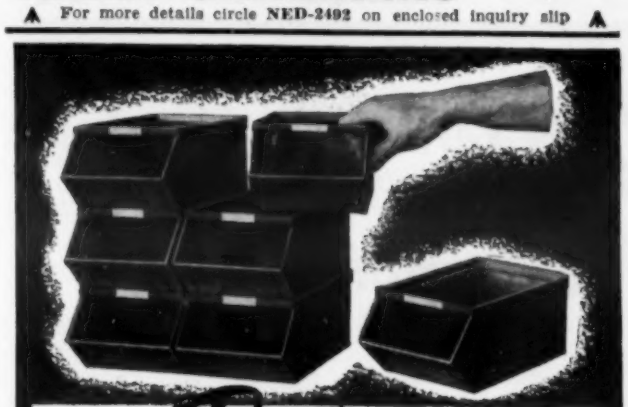
3 Adjusts from either side — Mount sheave so adjusting screw is either toward or away from motor bearing, whichever way it is more accessible.

Get complete facts in data sheet 20S7811. Ask your nearby Allis-Chalmers distributor, district office, or write Allis-Chalmers, Milwaukee 1, Wisconsin. A-3840

Texrope, Vari-Pitch and Magic-Grip are Allis-Chalmers trademarks.

ALLIS-CHALMERS

▲ For more details circle NED-2492 on enclosed inquiry slip ▲



Parts...

★ Where You Want Them . . .
★ When You Want Them

You'll save time, space and labor handling parts and material when you use these patented STACKBINS. STACKBINS keep parts instantly accessible—eliminate waste hand motions—stack compactly to form units of exactly the right shape and capacity—make order filling or assembly work faster, easier, more efficient. Heavy steel, all-welded construction. Sizes from 3½" x 6" x 3¼" to 15" x 24" x 11".

Manufactured and sold in Canada exclusively by Wickware-Stackbin, Ltd., Ottawa

Write Stackbin Corp., 1081 Main St., Pawtucket, R. I.

STACKBIN SYSTEM "Stacked and Still Accessible"

▲ For more details circle NED-2493 on enclosed inquiry slip ▲

REDUCES ACCIDENT HAZARD IN PRINTING PLANT!

More Proof that PABCO MASTIPAVE is the floor covering for YOU!

Listen to Harold Baxter, Vice-President of A. Carlisle & Co., one of San Francisco's largest printing concerns:

"Mastipave is so satisfactory we are planning to install it in other work areas. Our employees stand most of the time—really appreciate this floor covering. It's comfortable underfoot—has actually reduced the accident hazard from slips and falls. Employee efficiency is so important we couldn't do without Mastipave today. Under rough treatment, including light trucking, Mastipave has stood up well—low in cost—easy to maintain."

PABCO MASTIPAVE *in roll goods and tiles*

GRIP-TREAD *in roll goods only*

. . . Proved, for over 28 years—in schools, industries, hospitals, public buildings.
. . . Costs little, looks good, wears long.
. . . Worth investigating, for YOUR toughest job!

SEND NOW FOR THE FULL STORY OF MASTIPAVE

PABCO PRODUCTS INC.
New York 16 • Chicago 54 • San Francisco 19
(Mail to Dept. L, nearest office)

GENTLEMEN: Without cost or obligation to me, please send folder, "Every Building Needs Pabco Mastipave."

NAME _____
ADDRESS _____
CITY _____ STATE _____

▲ For more details circle NED-2494 on enclosed inquiry slip ▲

cooling breezes FOR electronic hot spots!

MODEL 219

American Electric

Variable Frequency

MOTOR-BLOWERS

MODEL 220

Especially designed for spot cooling electronic equipment aboard aircraft. Unique design insures minimum watts loss over full frequency range of 320 to 1000 cycles.

In spite of wide frequency variations, the cfm output remains essentially constant at sea level. As pressure is reduced, the rpm increases, providing additional velocity of cooling air.

TWO BLOWER TYPES: Single or double ended.

AIR DELIVERY: Blower heads available for any direction of air delivery.

Write for literature!

AMERICAN ELECTRIC MOTORS TRADE MARK

▲ For more details circle NED-2495 on enclosed inquiry slip ▲

NEW CUTLER-HAMMER STANDARD DUTY 3 ELEMENT PUSHBUTTON STATION

with the greatest array of wanted features ever offered to machine designers and users

Cutler-Hammer announces a new standard duty 3 element pushbutton station for use with magnetic starters on reversing and 2-speed drives. This new 3 element station can be described as the station most closely formulated to the requirements of the men who design, buy, use and service motorized machines. This station has every wanted and important feature, every feature found in any other 3 element station and some features found nowhere else. Check this new pushbutton station carefully and *let your comparison be your guide.* CUTLER-HAMMER, Inc., 1377 St. Paul Ave., Milwaukee 1, Wisconsin. *Associate:* Canadian Cutler-Hammer, Ltd., Toronto, Ont.

CHECK THESE FEATURES

Let your COMPARISON be your guide!

New Three Element Pushbutton Station weighs one pound, measures only 5-¾ x 2-¾ x 2-½. Beautifully styled. Cover and base desirable U-shape construction, simple, sturdy, accessible. Conduit knockouts *both* top *and* bottom. Cover lifts off when you loosen 2 screws that are retained by fiber washers. Finding guides assist accurate replacement of cover.

Mechanism superbly engineered. Terminals fully exposed, accessible and easily identified when cover is removed. 3 connectors simplify internal wiring. *Wiring cannot interfere with operation of contacts.* Terminals arranged so connections for normal reversing or two speed operation are on one side of the unit and don't cross one another. Stop button has normally closed contacts. Others have normally open-normally closed contacts for maximum circuit utility.

Silver to silver contacts with desirable wiping action that assures good electrical connection even on low voltages.

Pushbuttons are smooth-faced, concave and big for annoyance-free gloved finger operation. Buttons are friction-free, *won't* stick, *will* last longer. Easily replaceable.

The two-circuit buttons are mechanically interlocked for safety and circuit simplification.

•

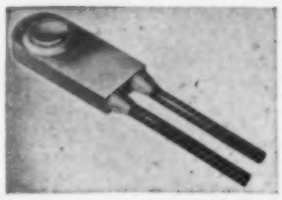
Also available 2 element standard duty pushbutton station with same enclosure features and appearance.

CUTLER-HAMMER MOTOR CONTROL C-H

NEW **2 element standard duty pushbutton station rated up to 600 volts.** Maintained contact (snap switch) type. With U-shaped cover construction.

▲ For more details circle NED-2496 on enclosed inquiry slip ▲

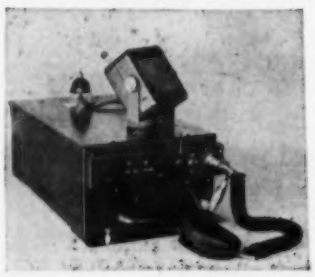
WATERPROOF SWITCH
of sine curve snap-action type



Mechanism of this waterproof switch is an over-center snap-action motion. Basic shock-resisting switch illustrated is enclosed in a silicone cover which seals it from moisture and dirt and makes it explosionproof and waterproof. Switch operates well from −65 to 165° F. Based at 20 amp resistive load 28 v dc, switch is made in various styles, including single-pole single-throw or double-pole double-throw and toggle and pushbutton types. Made by **Control Products Inc.,** Harrison 12, N. J.

▲ For more details circle NED-2497 on enclosed inquiry slip ▲

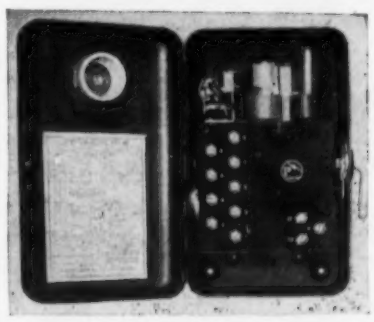
FORK TRUCK RADIO-TELEPHONE
all controls mounted on panel front



Ratings of either 1.5 or 10 w are available in this mobile radio-telephone for use on fork, lift and other industrial type vehicles. Since unit is usually installed next to operator, all operating controls are mounted directly on front of radio cabinet. Loudspeaker is separate to allow mounting atop radio cabinet, or on vehicle's steering column. Antenna is mounted on top of cabinet. Made by **General Electric Co.,** G-E Commercial & Government Equipment Dept., Electronics Park, Syracuse, N. Y.

▲ For more details circle NED-2498 on enclosed inquiry slip ▲

PHOTOELECTRIC CONTROL
for various industrial operations



Such operations as counting, conveyor control, production inspection, machinery safeguards and automatic control of processes are possible applications of series 20 and 21 photoelectric controls. The phototube, located at the point where observations are made, is offered either integral with the housing or in a small separate housing for use in limited space. Sensitivity adjustment permits operation over varying distances between phototube and light source. For operation on 115 or 230 v, 50/60 cycles, the unit's relay operates in 1/20th second. Operating range is 20 ft maximum. Made by **Photoswitch Inc.,** 77-89 Broadway, Cambridge 42, Mass.

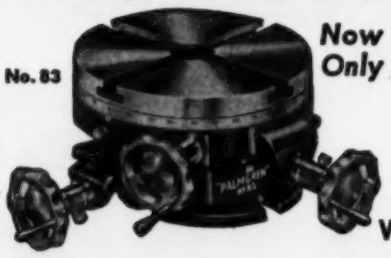
▲ For more details circle NED-2499 on enclosed inquiry slip ▲

DUAL CROSS and ROTARY FEED

PALMGREN

Rotary, Index, Milling Table

No. 83



Now Only **$54.50**

Turns Your DRILL PRESS Into A VERTICAL MILLER

Think what this will mean in your shop! Can be used on any Drill Press, Lathe or Milling Machine and provides what is practically a universal milling machine.

Designed for use in all types of metal and woodworking shops. A precision table permitting fine work to close tolerances. It is accurate, speedy, well constructed and attaches quickly in a firm position.

Rotary feed calibrated in degrees; Cross feed in thousandths; Dual Cross Slide with cross feed 2½" each side of center or 4¼" overall. Has acme thread cross feed screws, adjustable gibs on cross slides. 40 to 1 worm and gear ratio in rotary feed. Equipped with bolt slots and locking screws.

No. 83 Table Dia. 8", T-Slots ⅜", Base Keyway ⅜", Base Dia. 6¼", Ht. 5", Wt. 37 lbs. Price Only $54.50. Other Types available, No. 82 Dual Cross Feed only $39.75 No. 86 Rotary Feed Only $42.50

Order Today! If dealer can't supply, write us. Ask for Circular No. 10

CHICAGO TOOL and ENGINEERING CO.

Mfrs. of PALMGREN PRODUCTS Since 1918

8378 South Chicago Ave. • Chicago 17, Ill.

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Wood's

LIFE-LUBE BALL BEARING FLANGE UNIT

WOOD'S PRODUCTS

Sheaves • V-Belts • Anti-friction Bearings • Stock Flat Belt Pulleys • Hangers Pillow Blocks • Couplings Collars • "Made-to-Order" Sheaves and Pulleys "Sure-Grip" Standard, Super and Steel Cable V-Belts • Complete Drives

Just look at these features!

- Can't be over-lubricated; can't be under-lubricated
- Proper lubricant sealed in for life at Factory
- MRC Standard 200 series bearings for smooth, long life
- Synthetic seal keeps lubricant in—keeps dirt out
- They're self-aligning
- Self Locking collar locks bearing to shaft
- Most shaft sizes carried in stock; from ½" to 2 15/16"
- Write for Bulletin 194, or consult your Industrial Distributor

T. B. Wood's SONS COMPANY
CHAMBERSBURG, PENNA.

Branches: Cambridge, Mass., Newark, N. J., Dallas, Tex., Cleveland, O.

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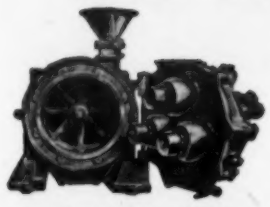
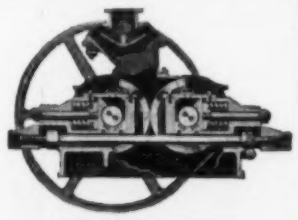
STURTEVANT EQUIPMENT INCREASES PRODUCTION AND CUTS COSTS



RING-ROLL MILLS
for medium and fine reduction 10 to 200 mesh, hard or soft materials. Very durable, small power. Operate in closed circuit with Screen or Air Separator. Open door accessibility. Many sizes. No scrapers, plows, or pushers.

ROTARY FINE CRUSHERS
for intermediate and fine reduction down to ¼". Open door accessibility. Soft or moderately hard materials. Efficient granulators. Excellent preliminary Crushers preceding Pulverizers.



CRUSHING ROLLS
for granulation, coarse or fine, hard or soft materials. Automatic adjustments. Crushing shocks balanced. For dry or wet reduction. Sizes 8x5 to 38x20. The standard for abrasives.

MOTO-VIBRO SCREENS
screen anything screenable. Classified vibrations. Unit construction — any capacity. Open door accessibility. Open and closed models with or without feeders. Many types and sizes — range of work ½ inch to 60 mesh.

Sturtevant Mill Company, 114 Clayton St., Boston 22, Mass.

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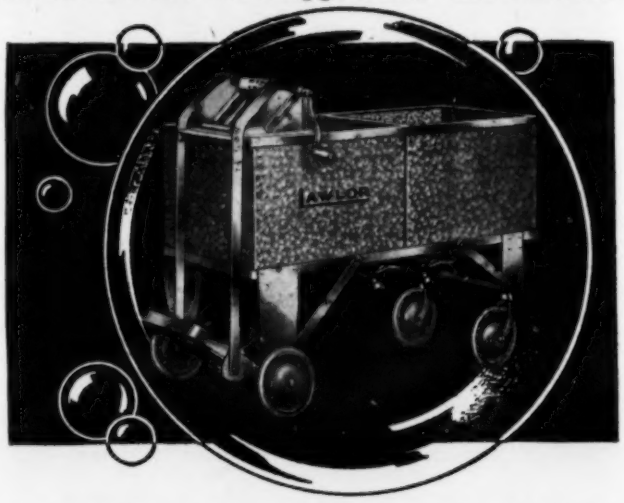
LAWLOR MOPPING TANKS

Lead the Field in Ruggedness and Service



8 styles and sizes of all steel, acetylene welded tanks • 2 or 3 compartments • 30, 60 or 65 gallon capacities • hand or foot pressure wringers • perforated roll wringers • special drain shut-offs • hot dipped, galvanized chassis and frames • rubber tired, cadmium plated steel wheels.

Write for Catalog of Mopping Tanks, Wringers, Floor Scrub Wax-Polishing Machines for every kind and size floor.

S. C. LAWLOR CO.

Quality Floor Equipment for 50 Years

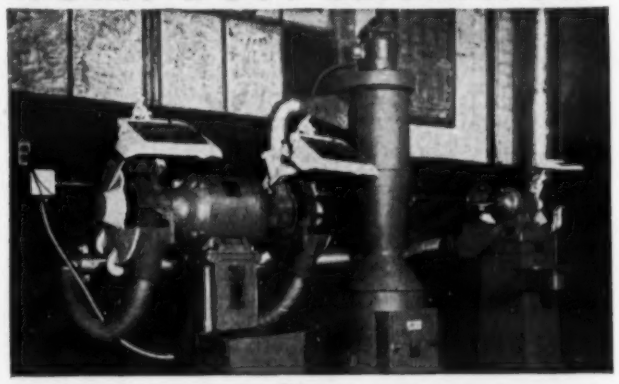
131 N. Aberdeen St., Chicago 7, Ill.

▲ For more details circle NED-2503 on enclosed inquiry slip ▲

▲ For more details circle **NED-2504** on enclosed inquiry slip ▲

Designed for Two, but Handling Three,
PROVES THE ABILITY of this

TORIT DUST SEPARATOR



Torit Dust Collectors are available in both cabinet and cyclone types, in sizes ranging up to 5 h.p.

Practically 100% dust collection is attained in the set-up pictured here, even though the bench grinder was added to the system originally installed to serve just the large pedestal grinder.

Torit Dust Separators have ample capacity. Compactly designed they easily fit into present, or future, production layouts. A minimum of piping reduces operational losses and does not block off light or heating sources. Maintenance and power consumption are exceptionally low for machines and separator start and stop together.

Take *your* dust problems to Torit. A standard Torit unit probably holds the answer. If not, a special adaptation to fit *your* requirements can be quick'y fabricated. Just drop us a line—there is no obligation.

P.S. Also ask for the latest Torit Catalog.

TORIT
MANUFACTURING CO. • 298 WALNUT ST. • ST. PAUL 2, MINN.

▲ For more details circle **NED-2505** on enclosed inquiry slip ▲

Mecco
SAFETY
"WEDGE-GRIP"
STEEL TYPE HOLDER

Fast
TYPE CHANGE FEATURE

Ideal for use on marking jobs requiring interchangeable type, this unit features a patented Safety Snap for speed and ease in changing type. Made to order in any size, it is made of Mecco Safety Steel to prevent spalling and mushrooming.

Write for literature

M.E. CUNNINGHAM CO.
SAFETY STEEL STAMPS
1055 Chateau Street • Pittsburgh 33, Pa.

▲ For more details circle **NED-2506** on enclosed inquiry slip ▲

FOOT WARMING MAT
measures 14 x 21 in.

Movable from machine to machine or desk to desk with ease, the Electro Mat serves to keep employee's feet warm when they are working in cool areas. Rubber mat measures 14 x 21 in., weighs about 5 lb and consumes as much power as a 100-w light bulb. Made by **Interstate Rubber Products Corp.**, Dept. 100, 908 Avila St., Los Angeles 12, Calif.

▲ For more details circle **NED-2507** on enclosed inquiry slip ▲

VEHICLE OPERATION ANALYZER
incorporates design improvements

TACHOGRAPH INSTALLED ON INSTRUMENT PANEL

Easier setting of warning light and more readable instrument face are among design improvements made in Model AA miles-per-hour Tachograph. Instrument is used for analyzing vehicle operation and movement and graphically records on chart the miles traveled, speed, idling of engine and time vehicle was in operation. Newly designed clock face, speedometer and million-mile odometer which records total mileage are lighted for better vision. Warning light is set by driver to conform with prevailing speed limits. Case is cast aluminum with metallic gray finish. Made by **Wagner Electric Corp.**, 6382 Plymouth Ave., St. Louis 14, Mo.

▲ For more details circle **NED-2508** on enclosed inquiry slip ▲

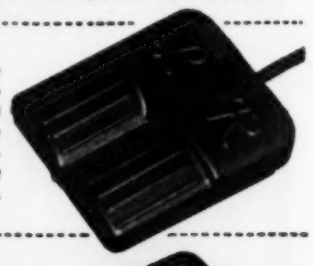
VAPOR DEGREASER
uses standard 55-gallon drum

Affording rapid vapor-solvent degreasing and cleaning, the Drum Major vapor degreaser fits standard 55-gallon steel drum. Condenser and heating units are externally mounted, leaving the drum interior unobstructed. Electric heating elements beneath the drum bottom are protected from sludging in dirty solvent and objects dropped in the tank. After long use, solvent can be recovered from accumulated sludge by distillation, utilizing the unit's own condenser. Thermostatic controls automatically maintain correct vapor level. Installation requires only plugging into a 220-v, 60-cycle ac power source. Elements are rated at 3500 w and initial solvent charge requires 5 gal. Drum is supplied with the unit. Made by **Currier Co.**, 712 73rd Ave., Oakland 4, Calif.

▲ For more details circle **NED-2509** on enclosed inquiry slip ▲

THE LINEMASTER SENIOR A "heavy duty" switch that can be operated with light foot or knee pressure. Precision-built for long dependable use yet rugged for heavy industrial application. Sturdy cast iron housing with black wrinkle finish. Various electrical interiors available in either maintained or momentary contact. Size: 7" x 4" x 3¼"; weight: 5¼ lbs.

THE LINEMASTER EXECUTIVE



Two switches in one with "on-center" positive mechanical interlock; only one circuit can be operated at a time. One screw to remove and the switch is ready for wiring. Streamlined, low to the floor permits ease of operation. Attractively finished in gray hammertone. Assortment of ratings and electrical combinations available. Size: 4" x 4⅝" x 1¼"; weight: 14 ounces.

The LINEMASTER COMPACT

A small, compact switch, precision-made and substantially built. Its unique design and construction suggests many light commercial and industrial applications. A versatile and low priced switch. Wide range of electrical combinations can be obtained by using choice of interiors. Size: 2⅝" x 2½" x ⅞"; weight: 6½ oz.

Write for illustrated bulletins and prices today!

LINEMASTER SWITCH CORP.
DEPT. C, P. O. BOX 312, PUTNAM, CONN.

▲ For more details circle **NED-2510** on enclosed inquiry slip ▲

Send for Descriptive Folder A-9

AJAX TAMA-WYATT **INDUCTION MELTING FURNACE**

AJAX ELECTRO-METALLURGICAL CORP. and Associated Companies
AJAX ELECTROTHERMIC CORP. • Type Vertical High Frequency Induction Furnaces
AJAX ELECTRIC CO., INC. • The Type Hydraulic Electric Salt Bath Furnace
AJAX ELECTRIC FURNACE CORP. • Type Vertical Induction Furnace for Melting

▲ For more details circle **NED-2511** on enclosed inquiry slip ▲

***NEW** many purpose*
individual Vulcanaire
DUST COLLECTING UNITS

Use on surface and other grinders where *any kind of* grinding dust must be removed. Salvage diamond dust.

Inexpensive, compact units, with no moving parts.

Operated from your present air supply.

Installed in a few minutes, eliminating need for costly centrally located dust collecting systems.

The collector element is mounted on the side of the machine. Quickly cleaned, requiring no refills.

Vac-suction pick-up device (vacuum nozzle) is mounted on the grinding wheel guard or close to grinding wheel on other applications. *This mounting permits constant contact with dust as the wheel is moved up or down.*

A simple needle valve operates the unit, and can be shut off when machine is not in use.

Available in two sizes: 700 series for grinding wheels 7" dia. or less—200 series for wheels 2" dia. or less.

"SALVAGE INDUSTRIAL DIAMONDS FOR DEFENSE"*

*That is the title of the National Production Authority's booklet which describes the growing critical shortage of industrial diamond supplies.

The shortage will soon result in idle machine tools, and lost defense production unless we straightway begin to conserve grinding wheels and salvage diamond dust. The N.P.A. fully and helpfully explains the methods for doing these things.

Request this N.P.A. booklet on your letterhead and Vulcan will be glad to send it to you. You will also receive literature on the versatile Vulcanaire Dust Collector which promotes health in your plant and turns dust into money.

It's made by the makers of Vulcanaire
The jig grinding attachment

Write for these

Vulcan Tool Co.
731 Lorain Ave. DAYTON 10, OHIO

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Springs FOR YOUR ORDNANCE CONTRACTS

Extension

Forms

Torsion

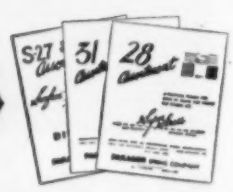
Flat

- Paragon has complete files on Government specifications.
- Experience in the manufacture of close tolerance, high quality springs.
- Complete heat treating and testing facilities.

Your ordnance springs come to you ready for assembly . . . inspected with test affidavits included with each shipment.

SEND SPECS. FOR QUOTATION

Write for STOCK SPRING DATA SHEETS giving complete specs, loading and design information.



PARAGON SPRING COMPANY
4619 West Fulton St., Chicago 44, Ill.
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IT PAYS TO *INVEST IN PROTECTION*

Send for Descriptive Literature

HANNIFIN "Air Warden"

Hannifin "Air Warden" safeguards against loss of production time—protects your valuable air-operated equipment three ways.

1. AIR FILTER—removes grit, dirt, scale, moisture, emulsified oil.
2. PRESSURE REGULATOR—keeps pressure where you want it. No danger of pressure build-up with "Air Warden."
3. LUBRICATOR—atomizing type lubricator, can be filled without shutting off air pressure.

Sold separately or in combination (as shown).

HANNIFIN
HANNIFIN CORPORATION, 1127 S. Kilbourn Ave., Chicago 24, Illinois
For more details circle NED-2514 on enclosed inquiry slip

HARPER HAS THEM!

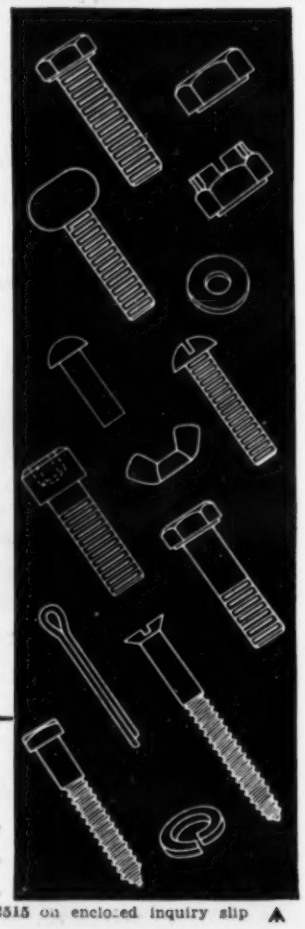
Everlasting Fastenings by the Dozen or the Million!

- Specialists in bolts, screws, nuts, rivets, washers and fastening accessories!
- In brass, bronze, copper, aluminum, stainless steels, Monel!
- For all problems involving corrosion, heat, abrasion, stress, appearance!
- America's largest producer of non-corrosive fastenings!
- Larger stocks, greater selection—over 7000 items!
- Deliveries from nearby warehouse and distributor stocks!
- Ask for complete Harper Price List and Stock Book!

HARPER
EVERLASTING FASTENINGS

The H. M. Harper Company
8212 Lehigh Ave.
Morton Grove, Ill.
Rush Harper Price List and Stock Book.

Name.....
Address.....
City.....State.....



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FIRE ALARM UNIT can actuate fire-fighting devices

A loud audible warning signal is produced by this 5 x 3 x 3-in. Mite-o-larm fire detection unit which can be used singly or wired in series by two conductor wires for multiple unit installation. Since it is low voltage battery operated it will also detect fires started from electrical short circuits, and can be used to actuate fire protection devices. Button on front of master unit provides for periodic testing of circuit and battery conditions. An auxiliary is available for combination installation with master alarm. When one auxiliary is set off, all master units connected will be activated. Made by **Marmet Corp.**, Box A, Wausau, Wis.

For more details circle NED-2516 on enclosed inquiry slip

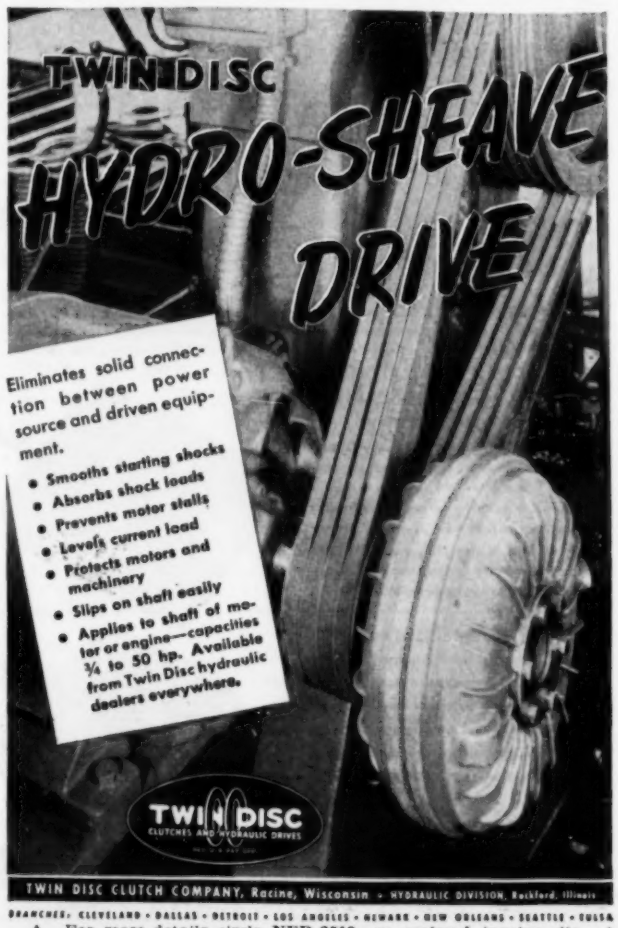
BILLET DESCALER machine is automatic in operation

Equipped with a gravity conveyor head and fully automatic in operation, the Elmes billet descaling cabinet is available in pit and floor-mounted types. It has a removable scale basket and a spray ring fitted with six spray nozzles which encircle the billet. Nozzles are directed at both ends of the billet to remove scale completely. They are accessible for replacement. The roller conveyor is built to withstand extreme temperatures. Unit is of welded steel construction with rustproof scale basket screen. Cabinet can be supplied with operating controls for use with an existing accumulator system, or with suitable accumulator system and pumps. Made by **American Steel Foundries**, Elmes Engineering Div., 1179 Tennessee Ave., Cincinnati 29, O.

For more details circle NED-2517 on enclosed inquiry slip

DO YOU KNOW? Special designs of any type of metal alloy extrusion can be supplied to order. Company has facilities for production, polishing, etching and anodizing extrusions up to 1¼ million pounds per month. Also offered are standard stock extrusions for shipment from stock on a 24-hour shipping schedule. Service offered by Alumi-Trim, Inc., Rome, Ga.

For more details circle NED-2518 on enclosed inquiry slip



TWIN DISC CLUTCH COMPANY, Racine, Wisconsin • HYDRAULIC DIVISION, Rockford, Illinois
BRANCHES: CLEVELAND • DALLAS • DETROIT • LOS ANGELES • NEWARK • NEW ORLEANS • SEATTLE • TULSA
For more details circle NED-2519 on enclosed inquiry slip

PURE WATER

DISTILLED WATER? PROBLEMS SOLVED WITH *Barnstead* EQUIPMENT

DEMINERALIZED WATER?

In hundreds of manufacturing processes, where complete purity is needed, Barnstead Stills provide the highest-quality, lowest-cost, chemically pure, sterile water from ½ to 1000 gallons per hour. With over 100 different models to choose from, Barnstead can provide the exact still to fit your particular needs. For Barnstead Laboratory and Industrial stills are the proven standard of the scientific and industrial world.

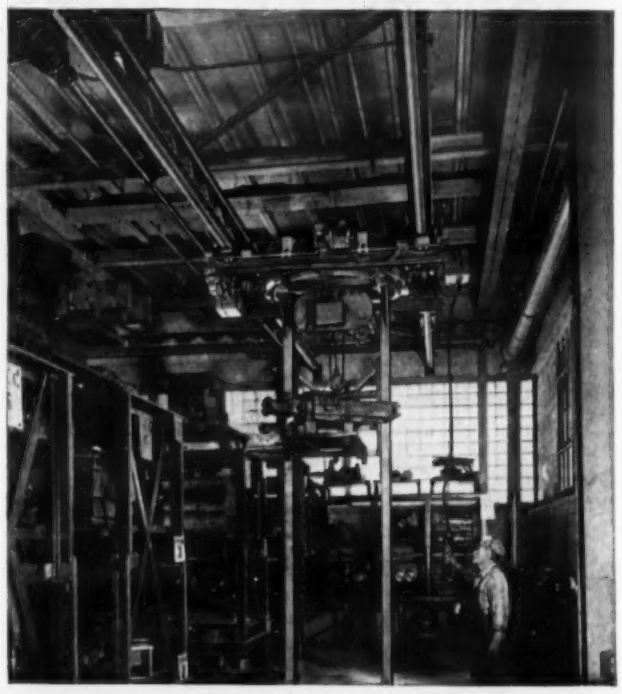
Where modern manufacturing processes require only high-test mineral-free water, Barnstead Demineralizers are the best producers . . . 5c per 1000 gallons with a minimum of supervision and maintenance. Many new industries are turning to Barnstead Demineralized Water for greater production, fewer rejects and better quality control.

WRITE

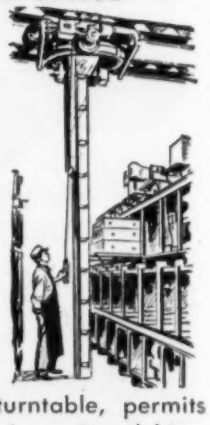
Catalog #123 gives both sides of the Pure Water Picture. Since Barnstead makes both stills and demineralizers, you'll find this catalog complete, authoritative, unbiased. Write Today!

First in Pure Water since 1878 **Barnstead** STILL & STERILIZER CO.
16 Lanesville Terrace, Forest Hills, Boston 31, Mass.
For more details circle NED-2520 on enclosed inquiry slip

60% MORE DIES NOW STORED



ONE MAN NOW CONTROLS DIE STORAGE WITH 60% MORE DIES STORED IN THE SAME FLOOR SPACE



Without extra building, a large Mid-Western manufacturer of internal combustion engines has solved a difficult die storage problem by installing a Louden Monorail System. Capacity of the storage area has been jumped 60%, "housekeeping" efficiency has been increased, while the labor force has been reduced from several men to one-man control.

The "tiering" trolley, operating on a double-girder crane with turntable, permits easy, accurate positioning of dies in assigned bins. Complete push-button operation allows one-man control. The skid method of handling eliminates damage caused by slings or dropping.

FREE BOOK . . . Case histories of successful Monorail applications. Write for "Economical Material Handling" today.

THE LOUDEN MACHINERY COMPANY
7221 S. Superior Ave., Fairfield, Iowa

Louden

OVERHEAD MATERIAL HANDLING
For more details circle NED-2521 on enclosed inquiry slip

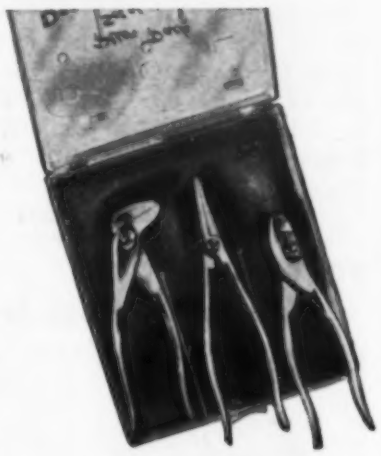
Grounds upkeep and maintenance problems are solved quickly, easily and BETTER when you use the powerful 5-HP Gravely Tractor! . . . 20 tools for year-round use with seasonally selected attachments, quick change from job to job in minutes! Only the Gravely does so many jobs so well!

All-Gear Drive, Power Reverse. Institutions-tested for 31 years . . . Ask for your copy of FREE Gravely catalog, "Power vs. Drudgery." Find out how you can do MORE jobs faster and better. Write today!

Gravely Motor Plow & Cultivator Co.
BOX 1180 DUNBAR, WEST VIRGINIA

▲ For more details circle NED-2522 on enclosed inquiry slip ▲

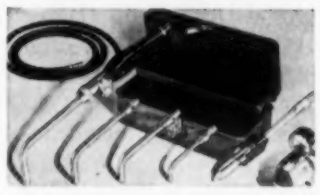
MINIATURE PLIER SET
furnished in hinged plastic kit



This Meteor Plier Pack consists of parrot nose, needle nose and straight slip-joint pliers in handy hinged plastic case. Power-grip contour handles afford ample grip for maximum leverage and easy manipulation. Tools are drop forged from alloy steel and are then heat treated, polished and chrome plated. Of miniature size, pliers are designed for all types of electrical, maintenance, electronic or assembly work. Made by **Meteor Mfg. Corp.**, Dept. D, 1441 Main St., Buffalo 9, N. Y.

▲ For more details circle NED-2525 on enclosed inquiry slip ▲

AIR-ACETYLENE OUTFIT
for soldering, heating, brazing



Fine soldering, large volume heating and light brazing can be handled by the Prest-O-Lite five-in-one air-acetylene outfit. Four open-flame torch stems and pointed copper soldering iron attach interchangeably to control handle equipped with pilot needle valve contained in shutoff valve. This valve can be adjusted to keep only a small pilot flame burning when torch flame is off. Regulator is adjustable to deliver gas at any pressure up to 13 psi. No adjustment is needed to compensate for decreasing cylinder pressure. Hose with standard A-size left-hand thread hose fittings and metal carrying case for all parts completes the outfit. Also available is a four-in-one outfit, without soldering iron, for the same range of work. Made by **Linde Air Products Co.**, Room 308-NED, 30 E. 42nd St., New York 17, N. Y.

▲ For more details circle NED-2526 on enclosed inquiry slip ▲

DO YOU KNOW? New concepts in optics for industry are possible with free consulting service covering the application of industrial stereomicroscopes to all types of production and inspection operations. Instrument can be built into machine, assembly and inspection set-ups to speed processing, reduce rejects and diminish employee fatigue. Magnifications up to 150 times are possible. Service offered by Bausch & Lomb Optical Co., 727 St. Paul St., Rochester 2, N. Y.

▲ For more details circle NED-2527 on enclosed inquiry slip ▲

what type of **CUSTOM BUILT WIRE CLOTH PARTS** do you need ?

heat treating?
pickling?
plating?
filtering?
handling?

You can be sure of getting exactly what you need in custom built wire cloth parts when you call—**CAMBRIDGE.**

With more than 30 years experience in this field, we can work from your own prints . . . or, if none are available our design engineers will draw up prints based on your description of the job the part must do.

Our newly expanded production facilities include equipment for cutting, forming, bending, shaping and welding of any metal or alloy in sheet, rod, or wire cloth form . . . as well as our large battery of wire cloth looms.

Tell us your needs. Let us tell you how economically and quickly we can fill them. Write direct or call your Cambridge field engineer. Look under "Baskets-Wire" in your classified telephone directory.

FREE CATALOG describes Cambridge facilities for fabricating metal specialties. Write for your copy today.

The Cambridge Wire Cloth Co.
WIRE CLOTH | METAL CONVEYOR BELTS | SPECIAL METAL FABRICATIONS
Department C
Cambridge 11, Md.

OFFICES IN PRINCIPAL INDUSTRIAL CITIES

▲ For more details circle NED-2529 on enclosed inquiry slip ▲

START of a perfect FINISH with haskins

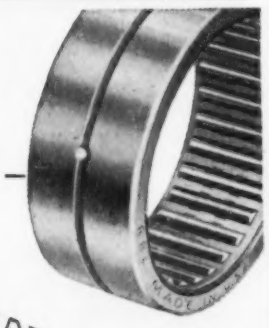
FLEXIBLE SHAFT TOOLS

Whether you're finishing a casting, a weld, a fine die or stainless steel surface, you'll get the equipment that will do the job best from the best-known name in flexible shaft equipment—Haskins. Here is a company with a world of finishing experience to offer you—and a line of flexible shaft equipment in which long-life, multiple usefulness and economy have never been sacrificed to price.

R. G. HASKINS COMPANY 2647 W. Harrison St., Chicago, Ill.

▲ For more details circle NED-2523 on enclosed inquiry slip ▲

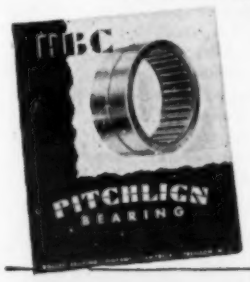
discover



PITCHLIGN
Trade Mark

RBC's NEW ROLLER BEARING

. . . the only bearing with a cage that guides the rollers along their entire length at the pitch circle. The cage, in turn, is rigidly supported by two shoulders of the race on which it rides. This provides DOUBLE ALIGNMENT—just one of the many exclusive PITCHLIGN features. Get the full story. *Write for Bulletin SF 966*



GET THE FACTS
WRITE TODAY

RBC
ROLLER BEARING COMPANY OF AMERICA
TRENTON, N. J.

▲ For more details circle NED-2524 on enclosed inquiry slip ▲

CUTTING PADS

Made of tough, "self-healing" TYGON plastic, COLONIAL Cutting Pads—

1. Reduce die wear and breakage,
2. Lessen rejects from double cutting due to "bounce back",
3. Increase production through quiet, less fatiguing operation.

Long wearing, dustless, and usable on both sides, COLONIAL Cutting Pads are widely used in machine, or hand cutting of rubber, leather, plastics, cork, candy, paper, fibre, felt cloth, foils, or light gauge metals.

Available in 5 standard sizes: 20"x20"x⅜", 18"x36"x¾", 18"x36"x1", 20"x40"x¾", 20"x40"x1". Generous credit given for return, after full use.

Write, today, for full information and prices!

COLONIAL RUBBER CO.
RAVENNA, OHIO

▲ For more details circle NED-2528 on enclosed inquiry slip ▲

FACTs
ABOUT BEARING DESIGN to help you select the
Best A-c. Motor

All in this one Bulletin
15-POINT COMPARISON CHART
STATEMENTS BY BEARING MANUFACTURERS
CUTAWAY DRAWINGS AND PHOTOS

RELIANCE Precision-Built MOTORS

Call your nearest Reliance Sales Representative or write us direct for your free copy of this fact-filled bulletin on the vital differences in the bearing designs of A-c. motors. Ask for Bulletin B-2201.

RELIANCE ELECTRIC AND ENGINEERING CO.
1082 IVANHOE ROAD • CLEVELAND 10, OHIO

Sales Representatives in Principal Cities

▲ For more details circle NED-2530 on enclosed inquiry slip ▲

WIRE MESH

Maybe it all *does* look pretty much the same at first glance. But when a firm has been making wire mesh for 70 years man and boy, there's bound to be a little more to it than meets the eye — a little more know-how in engineering and weaving, a little more quality in the product, a little more service and satisfaction for the user.

JELLIFF WIRE MESH is woven in all ductile metals

JELLIFF WIRE MESH is woven in all commercial weaves

JELLIFF WIRE MESH is woven in widths up to 72 inches

JELLIFF WIRE MESH is economical. Every foot runs true to the specifications.

★ ★ ★ ★

JELLIFF WIRE MESH is a quality product and has been for 70 years. You can depend on it.

Write today for full details about JELLIFF WIRE MESH, JELLIFF WIRE MESH PRODUCTS, and JELLIFF'S CONSULTATION SERVICE on wire-mesh engineering. Address Department 11.

THE C. O. JELLIFF MFG. CORP.
DIPPING BASKETS · LEKTROMESH · RESISTANCE WIRE
WIRE MESH PARTS · WIRE CLOTH · STRAINERS • FILTERS
SOUTHPORT CONNECTICUT

▲ For more details circle NED-2531 on enclosed inquiry slip ▲

One of many reasons why skilled industrial maintenance workmen prefer

AIRETOOL TUBE CLEANERS

slip-fit construction

Each part of an AIRETOOL tube cleaner motor is made of heat treated alloy steel, precision ground to a perfect slip-fit. The operator can take the motor apart when necessary and quickly reassemble it right on the job without special tools. This convenience reduces down-time, makes maintenance easy. It is one of many basic, work-saving reasons why maintenance men specify AIRETOOL for fast, efficient cleaning of all types of tubes, straight or curved. For full details write The AIRETOOL Mfg. Co., 308 S. Center St., Springfield, Ohio.

There's an Airetool Tube Cleaner and Tube Expander for Every Type of Tubular Construction.

SLIP-FIT CONSTRUCTED MOTORS — 5-blade, 2-stage construction, each stage with double exhaust. Five lubrication points.

BRANCH OFFICES: Philadelphia · New York • Chicago • Tulsa · Baton Rouge • Houston

AIRETOOL MANUFACTURING COMPANY
SPRINGFIELD, OHIO

REPRESENTATIVES in principal cities in U.S.A., Canada, Mexico, South America, England

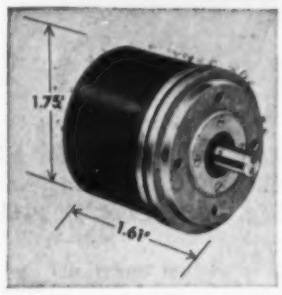
▲ For more details circle NED-2532 on enclosed inquiry slip ▲

O-RING SLIDE RULE gives data for proper application

An assist for those persons who must determine the proper O-ring for a particular application is provided by the Parco O-Ring Selector. It covers both the 6227 and 6230 series. The pocket-size chart, in slide rule form, is available free from **Plastic & Rubber Products Co.**, 2101 Hyde Park Blvd., Los Angeles 47, Calif.

▲ For more details circle NED-2533 on enclosed inquiry slip ▲

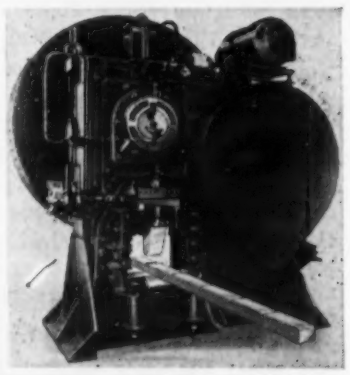
POTENTIOMETER is small and has low noise level



Applications requiring high resolution with angular shaft displacement up to 3600 degrees, such as servo-control and computers, can make use of the Spiralpot slide wire potentiometer. It is small in size, has low noise level, unlimited zero increment resolution, low torque and high resistance ranges. Electrical output is exactly proportional to angular shaft position with the brush traversing the length of a resistance wire as the shaft is rotated. Unit measures 1.81 in. long by 1.75 in. diameter and can withstand 50 G steady acceleration along any axis. Potentiometer is offered is range of five standard resistance values from 500 to 2500 ohms in 500-ohm increments. Made by **G. M. Giannini & Co.**, 225 W. Colorado St., Pasadena 1, Calif.

▲ For more details circle NED-2534 on enclosed inquiry slip ▲

BILLET-BREAKER & SHEAR tonnage pressures from 325 to 2200



Either breaking of nicked mild or alloy steel billets, or shearing them with regular shear knives, hot or cold, can be performed with this combination billet-breaker and shear equipped with automatic air-operated billet hold-down mechanism. Machine is equipped with tool steel knife seats which can be added for function as a shear. It is available in sizes from No. 10 to No. 17 with shearing pressures ranging from 325 to 2200 tons. Machine has air-operated jaw clutches designed to withstand very heavy shock loading. Main frame construction consists of all welded rolled steel plate. Made by **Buffalo Forge Co.**, 215 Mortimer St., Buffalo 5, N. Y.

▲ For more details circle NED-2535 on enclosed inquiry slip ▲

OHIO Adjusting Screws May Simplify Your Requirements

FG-Ohio Screw With Rubber Pad — Thread Sizes 5/16-18 to ½-20

ST Ohio Shoulder Thumb Screw — Thread Sizes 10-24 to ½-20

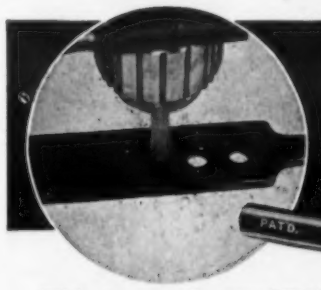
Material Low Carbon Steel

For samples and information about Ohio Adjusting Screws send to

The Ohio Nut & Bolt Co.
33 First Ave., Berea, Ohio

▲ For more details circle NED-2537 on enclosed inquiry slip ▲

Drill Hardened Steels without Annealing—



USE The New IMPROVED "HARDSTEEL" DRILL

With the new, improved "HARDSTEEL" Drill, you can do accurate, smooth drilling, countersinking, counterboring and reaming in steels hardened by any process without first annealing the work. And they work with equal ease on work-hardening steels and high carbon—high chrome steels of any degree of hardness.

"HARDSTEEL" Drills fit standard drill presses. They save time and reduce rejects. They permit engineering changes requiring additional drilling after hardening. And parts drilled after hardening always match at assembly.

Write for a copy of the "HARDSTEEL" Operators Manual showing how "HARDSTEEL" drills are cutting costs in thousands of plants.

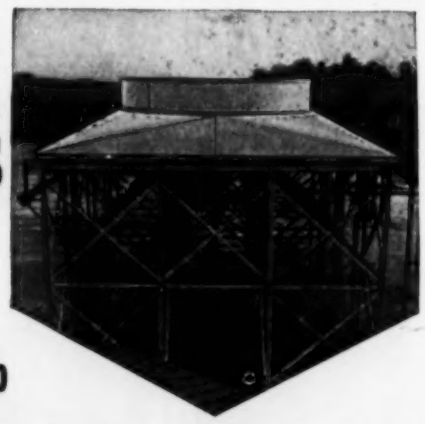
You Harden It—We'll Drill It—With "HARDSTEEL"

BLACK DRILL COMPANY, INC.
1380 East 222nd St. • Cleveland 17, Ohio

Also makers of— BLACK DRILLING UNITS—AUTOMATIC, SELF-CONTAINED—FOR COST-CUTTING PRODUCTION ON ALL MATERIALS *Write for information*

▲ For more details circle NED-2538 on enclosed inquiry slip ▲

Here's why Aeromaster FANS are BEST for ANY Cooling Job



★ *Adapted high-speed, top-efficiency aircraft propeller design* ★ *Engineering service for special installations* ★ *Longer life—improved anti-flutter performance* ★ *Saves up to 10% in power costs* ★ *Each blade precisely pre-balanced* ★ *Easily assembled by unskilled labor* ★ *Aeroloid blade coating unaffected by mild acids and alkalies* ★ *Blade pitch easily adjustable to meet changing power requirements* ★ *Specified as original equipment by many manufacturers* ★ *Sales engineers available in principal cities.*

Koppers Aeromaster Fans are available for any sizable industrial cooling requirement, from diesel locomotives to giant air conditioning systems. Standard models from 5 to 24 ft. dia., with 4, 6 or 8 blades per fan. Capacities up to 750,000 c.f.m. Every fan fully guaranteed. For complete detailed information, send us the type and size of the equipment to be cooled.

Koppers Company, Inc., *Aeromaster Fans*, 381 Scott St., Baltimore 3, Md.

KOPPERS

KOPPERS COMPANY, INC.

▲ For more details circle NED-2536 on enclosed inquiry slip ▲

just SAW that's all!

WITH THE KETT PANEL CUTTING SAW

• SAVE TIME---SAVE MONEY
• NO DRILLING---NO FILING---NO DEBURRING

Just "plunge" right in and cut . . . everything from cardboard to steel. Follow curves or contours . . . zip through the toughest cutting jobs quicker and easier. Typical capacities: 12 ga. steel, 3/16 in. aluminum, ¼ in. masonite, plywood, Amor Ply, and plastics. Interchangeable heads permit capacities up to ½ in. in soft rigid materials. A variety of blades for hard tempered or soft aluminum, copper, brass, lead, cast iron, etc., are available. Your present electric or pneumatic drill motor may be used for the power unit. Write for Catalog P-11 showing time-saving KETT tools.

The KETT TOOL COMPANY
5 East Third St., Cincinnati 2, Ohio

▲ For more details circle NED-2539 on enclosed inquiry slip ▲

Faultless ENGINEERED TRUCK CASTERS CUT HANDLING COSTS

A fast flowing production line on Faultless Casters produces *more of anything* with less manpower and effort. It's your *practical solution* to cutting handling costs.

200 Series Double Ball Bearing Swivel Plate Caster with Plaskite Wheel

H300-V Series Swivel Plate Caster with Grooved Wheel

Regardless of what you handle or make, there is a Faultless Caster especially suited to your job. Wheel diameters range from 2" to 12"—load cap. from 65 lbs. to 9 tons ea.

FAULTLESS CASTER CORP.
Dept. NE-8, Evansville 7, Indiana
Branches in Principal Cities—Canada Factory: Stratford, Ont.

For more details circle NED-2540 on enclosed inquiry slip

WITH RITE-HITE ADJUSTABLE LOADING DOCKS

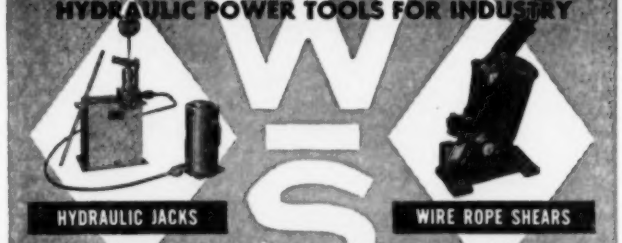
- One man operation — set vertical and lateral dock adjustment in seconds.
- Fingertip Control — the RITE-HITE is perfectly counterbalanced.
- Proper dock to truck alignment speeds loading and unloading.
- Prevents damaging material.
- Rugged Design — All welded I-Beam construction.
- Easy to install in your present dock.
- No costly machinery, no electric or fluid controls.

GET ALL THE FACTS. Write for Bulletin 14

LOOMIS MACHINE CO.
RITE-HITE DIVISION CLARE, MICHIGAN

For more details circle NED-2541 on enclosed inquiry slip

WATSON-STILLMAN
HYDRAULIC POWER TOOLS FOR INDUSTRY



HYDRAULIC JACKS

These sturdy units, with either independent or integral pumps, are useful for many jobs in construction and maintenance. Capacities from 20 to 500 tons.

WIRE ROPE SHEARS

W-S wire, cable and bar shears provide years of trouble-free general service. They are light and portable for convenient on-the-job use.

PORTABLE PIPE BENDERS

Bends standard, extra heavy and double extra heavy steel pipe from ⅜ in. to 2 in., as well as standard weight pipe up to 3 in. dia. Also solid mild steel bars up to 2 in. dia.

HAND PUMPS

Single and double plunger types, with reservoirs of different capacities for operating small hydraulic tools, jacks and other hydraulic equipment, and for general hydrostatic testing purposes.

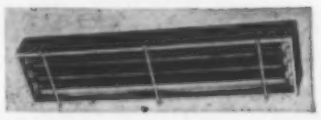
9-M-10

Send for your copy of Bulletin A-5 . . . It's Free.

DISTRIBUTOR PRODUCTS DIVISION
WATSON-STILLMAN
ROSELLE, NEW JERSEY

For more details circle NED-2542 on enclosed inquiry slip

ULTRA-VIOLET LIGHT SOURCE
fixture is dust and vaporproof



Area of 20 to 40 sq ft is covered with intense, noninjurious, long wave ultra-violet radiation by these Blak-Ray model XXX-40 ultra-violet fixtures designed for fluorescent inspection, processing and packing operations. Fixture is dust and vaporproof and has special-finish aluminum reflector for maximum ultra-violet intensity. Three 40-w tubes are used which are made of self-filtering glass that increases fluorescent response to point where inspection can be done in normally lighted areas. They are rated at 3000 hours, burn cool, start instantly and can be turned on and off without warm-up or cool-off periods. Made by **Ultra-Violet Products, Inc.**, 143 Pasadena Ave., South Pasadena, Calif.

For more details circle NED-2543 on enclosed inquiry slip

CONVEYOR TRIPOD STANDS
have 3-in. hard rubber casters

Three-inch hard rubber casters on these tripod conveyor supports afford easy movement of conveyor sections over factory floors. Conveyor does not require bolting to stand and can thus be quickly set up. Small, medium and large models are available, as well as special stands for special height adjustment. They can be used with most makes of conveyors. Made by **Speedways Conveyors, Inc.**, 1246 Niagara St., Buffalo 13, N. Y.

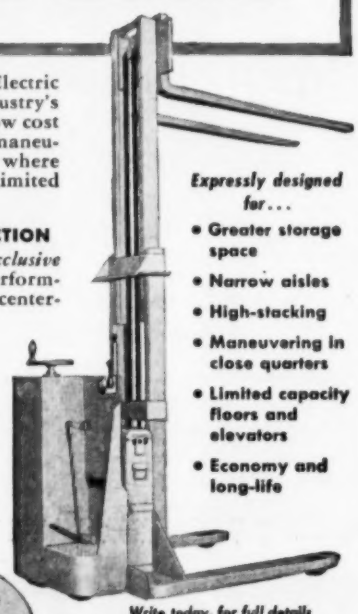
For more details circle NED-2544 on enclosed inquiry slip

TOGGLE VALVES
angle type for high pressure, vacuum

Quick-acting angle toggle valves of the lever type are for use in controlling high vacuum systems or pressures up to 500 psi under certain conditions. They provide quick opening valve with no leakage through stem or seat. They are normally made of brass with synthetic rubber seats, but the seat material can be altered to meet specific conditions. For instrument panel installation, valves are furnished with threaded bonnets and mounting nut. Provision is made for screwing colored plastic knobs on the lever for identification purposes. Made by **Hoke, Inc.**, 217 S. Dean St., Englewood, N. J.

For more details circle NED-2545 on enclosed inquiry slip

NEW Automatic Transveyor



This new Automatic Electric Truck is the answer to industry's need for a more compact, low cost Stacker. It is engineered to maneuver in six foot aisles and where floors and elevators have limited capacity.

EXCLUSIVE BALANCED ACTION

The Transveyor has two exclusive features that insure better performance, longer life. 1. The center-pivot design compensates for irregular floor surface thus eliminating frame distortion and uneven load distribution. 2. Drive and idler wheels are tie rod connected. This wheel alignment prevents costly, scrubbing action that results in excessive tire wear to non-drive wheel.

Expressly designed for . . .

- Greater storage space
- Narrow aisles
- High-stacking
- Maneuvering in close quarters
- Limited capacity floors and elevators
- Economy and long-life

Transveyor STACKER A PRODUCT OF AUTOMATIC — Lightens Life's Loads

® Registered Trade Mark

Write today, for full details
Automatic®
61 West 87th Street, Dept. W-2
Chicago 20, Illinois

For more details circle NED-2546 on enclosed inquiry slip

Speed Production.... Cut Fabrication Costs

With this Low-Priced Oxy-Acetylene Cutting Machine OXWELD CM-30

The OXWELD CM-30 Portable Cutting Machine is for cutting straight lines and bevels on metals up to 4 in. thick. It also will cut circles from 2¾ to 96 in. in diameter, and can be hand guided for simple shapes.

Convenient to Use

The CM-30 can be operated either on lightweight track for straight-line cutting, or on the work itself for cutting circles.

Write for a descriptive folder.

LINDE AIR PRODUCTS COMPANY
A DIVISION OF UNION CARBIDE AND CARBON CORPORATION
30 East 42nd Street UCC New York 17, N. Y.
In Canada: Dominion Oxygen Company, Limited, Toronto

For more details circle NED-2547 on enclosed inquiry slip

JOHNSON Bronze on Steel Bearings

Light Weight LOW COST

While widely used in automotive and farm equipment, these bearings have certain important industrial uses. Pre-cast bearing bronze powder is bonded to copper coated strip steel—combining the fine bearing qualities of copper-lead alloy with the strength and other physical properties of the steel backing. Developed and patented by Johnson Bronze. This material is available for washers, thrust plates and other flat parts requiring a bearing surface.

Write for complete information.

JOHNSON BRONZE COMPANY
580 South Mill Street • New Castle, Pa.

JOHNSON B BEARINGS Sleeve-Type

For more details circle NED-2548 on enclosed inquiry slip

NOW ONE MAN CAN DRILL "GREEN CONCRETE" OR GRANITE!

It's EASY, using a power hammer equipped with carbide-tipped Thunder-Core or Thunder-twist

Drills holes 1-1/8" to 6" diameter. Deep spiral flutes, one for each cutting tip, remove dust speedily and surely. Removable Thunder-Center makes it easy to precisely locate and start holes. Extra-length shanks and special tapers available on request. THUNDER-CORE does the cutting—the hammer does the work.

Drills holes 3/16" to 1-1/4" diameter, up to 24" deep. Spiral vanes, plus straight flutes, with no carbide hang-over at tip. Eliminates dust-packing and binding of bit in "GREEN CONCRETE" DRILLING and increases drilling rate in VERY HARD CONCRETE or GRANITE. THUNDER-TWIST does the cutting, the hammer does the work.

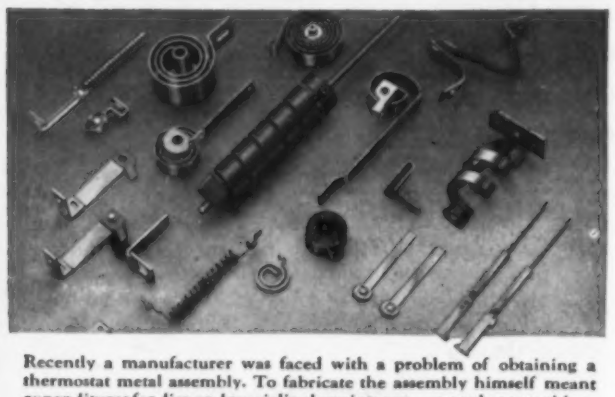
By the makers of Cyclo-Core and Cyclo-Twist. *Send for new Masonry Drill Bit Guide—Helps you choose the RIGHT bit for EACH job!*

New England Carbide TOOL CO., INC.
60 BROOKLINE STREET, CAMBRIDGE 39, MASS.

For more details circle NED-2549 on enclosed inquiry slip

PROBLEM: *To get reliable automatic temperature control at low cost*

SOLUTION: *GENERAL PLATE'S fabricated* **TRUFLEX®** *thermostat metal assemblies meet every temperature requirement*



Recently a manufacturer was faced with a problem of obtaining a thermostat metal assembly. To fabricate the assembly himself meant expenditures for dies and specialized equipment . . . a costly proposition.

The problem was presented to General Plate who provided the necessary TRUFLEX assembly ready for installation. Result — necessary performance was obtained . . . costs were minimized.

You, too, can save money because General Plate fabricates, in accordance with your exact specifications, complete units which are supplied to you ready for installation. It means you eliminate costly fabrication problems and needless equipment costs . . . experimental and assembly adjustments are crossed from your books.

You get reliable performance because every order comes to you an exact duplicate of the original . . . consistently uniform in tolerances, temperature reaction and performance, thus preventing rejects and costly adjustments in assembly.

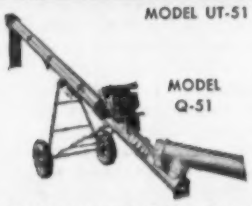
GENERAL PLATE

Division of Metals & Controls Corporation • 811 Forest St., Attleboro, Mass.

▲ For more details circle **NED-2550** on enclosed inquiry slip ▲

Streamline **BULK MATERIAL HANDLING COSTS** with **BAUGHMAN** *Hi-Speed job-fitted* **CONVEYORS**

MODEL UT-51



MODEL Q-51

MODEL Q-51 and UT-51 undertrack: two of several types of BAUGHMAN Screw Conveyors for all non-abrasive, fluid-in-motion materials.

Replace costly "batch" handling and obsolete conveyors with new ***Hi-Speed*** *BAUGHMAN Conveyors —years ahead in design and construction! Stationary and portable models available.* ***Write for bulletins on complete line today.***

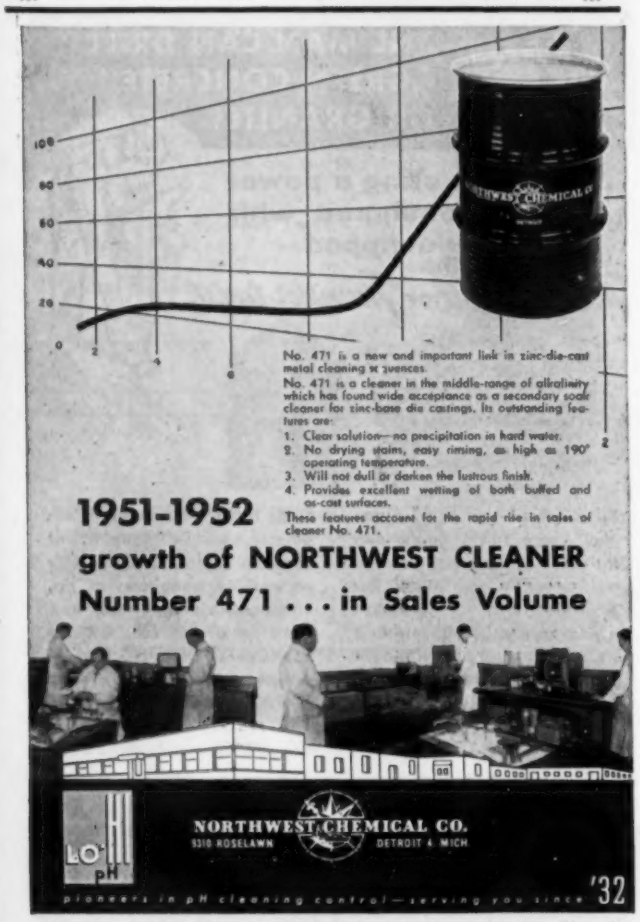
MODEL 230

MODEL 230—one of many types of BAUGHMAN belt, belt-and-bucket and chain-and-flight conveyors for every kind of bulk material.

BAUGHMAN

BAUGHMAN MFG. CO.
INCORPORATED
179 ARCH ST.
Jerseyville, Illinois

▲ For more details circle **NED-2551** on enclosed inquiry slip ▲



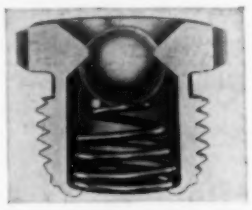
▲ For more details circle **NED-2552** on enclosed inquiry slip ▲

LOW-LIFT TRUCK
has more power and less length

Redesign of Jacklift electric low-lift walkie truck has given it twice the power of previous models with 15 per cent less headroom and a decrease in overall length. The 4000-6000 lb capacity truck has all controls in the handle head. Electric "deadman" brakes provide cushioned braking when the operator removes his hand from the handle "trigger." All controls operate with the handle in any position, including vertical. Pressing the handle "trigger" allows the truck to pick up speed smoothly. Truck is available in either pallet or platform types. Made by **Lewis-Shepard Products,** Dept. R-1, Watertown 72, Mass.

▲ For more details circle **NED-2553** on enclosed inquiry slip ▲

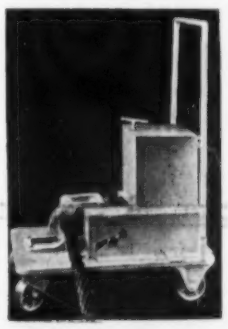
FLUSH GREASE FITTINGS
heads cannot be knocked off



If you have problems resulting from protruding heads of grease fittings being sheared off, here is a flush type of fitting which should remedy much of the trouble. The flush type fitting presents negligible obstruction or opportunity for being knocked off. Fittings are made with a ball check, supported by a spring, to prevent oil or grease leakage caused by back pressure. They are offered in standard sizes. Made by **Universal Lubricating Systems, Inc.,** 789 Allegheny Ave., Oakmont, Pa.

▲ For more details circle **NED-2554** on enclosed inquiry slip ▲

ELECTRIC WIRE ROPE SHEAR
cuts up to 1¾-in. rope in 20 sec



Wire rope of up to 1¾-in. size can be cut in 20 seconds by model EC Hydrashear cable cutter which is powered with ½-hp 110/220-v single phase motor-driven hydraulic pump that develops 10,000 psi and plugs into any electric circuit. Unit is furnished skid-mounted and is arranged for mounting on casters or wheels to suit user. It can be bench-mounted or operated at the job. Rope is positioned, electric switch is closed and cut is made through rope, after which motor turns off. Release valve is then opened and blade retracts for another cut. Made by **Pell Cable Cutter Co.,** Dept. A, 55 New Montgomery St., San Francisco 5, Calif.

▲ For more details circle **NED-2555** on enclosed inquiry slip ▲

Bulletin 600 Manual Starting Switches

A-B Quality

- Compact, attractive design
- Available in special enclosures

Bulletin 600 Manual Starting Switches are extensively used for air-conditioning and refrigeration service. Accurate and dependable overload protection for motors of one horsepower or less on a-c, or ¾ hp or less on d-c. Thermal overload elements available in a variety of ratings. Meet all N.E.C. requirements. Write for descriptive bulletin. Allen-Bradley Co., 1334 S. Second St., Milwaukee 4, Wis.

ALLEN-BRADLEY
QUALITY
MOTOR CONTROL

▲ For more details circle **NED-2556** on enclosed inquiry slip ▲

TROUBLE-FREE CARBON SEAL RINGS FOR MECHANICAL

Shaft Seals

In addition to many standard types, recent developments in Stackpole carbon-graphite shaft seal rings include grades that are highly effective in the presence of acids and other corrosive chemicals. As long time specialists in this field, Stackpole offers unsurpassed facilities for engineering suitable grades for practically any application. Write for recommendations, sending details of your problem.

STACKPOLE

STACKPOLE CARBON CO., St. Marys, Pa.

▲ For more details circle **NED-2557** on enclosed inquiry slip ▲

Motorola 2-Way Radio

helps save $18,000 a year at Allis-Chalmers!

Motorola mobile radio —a hard-working tool that can do the same day-in, day-out, money-saving job in your plant.

Motorola radio dispatching speeds flow of materials, boosts productive man-hours

Motorola radio co-ordinates materials handling at Allis-Chalmers . . . saves man-hours and machine-time. Two-way mobile radio enables *one* driver to keep four trailers moving . . . cuts waiting time . . . pays for itself *over and over* again. Motorola radio is a rugged, simplified, cost-cutting tool. Write for full details *today*.

Motorola Communications & Electronics Division
4545 Augusta Blvd., Chicago 51, Illinois
Rogers Majestic Ltd., Toronto, Canada

▲ For more details circle **NED-2558** on enclosed inquiry slip ▲

with MULTI-CLEAN ASPHALT TILE PRESERVER and THE MULTI-CLEAN METHOD

"We spend 65% less maintenance time on our asphalt tile floors and have cut our material costs in half since using the Multi-Clean Method," says the maintenance director at Seeger Refrigerator Co., St. Paul, Minn.

Multi-Clean Asphalt Tile Preserver and the Multi-Clean Method apply to old and new asphalt tile floors . . . add years to their life, impart a new beauty-clean appearance and sure footing. No wax is required for a bright and gleaming surface.

Maintenance in the Seeger offices includes daily dry dust mopping and damp mopping with cold water followed by machine buffing with a No. 0 steel wool disc every 3 to 4 days. A new application of Multi-Clean Asphalt Tile Preserver is made 4 times a year.

Write Multi-Clean Products, Inc., Dept. NE-11 for details.

Multi-Clean 9-Job Floor Machine

Multi-Clean Wet-Dry Vacuum

MULTI-CLEAN PRODUCTS INC.
2277 Ford Parkway
ST. PAUL 1, MINNESOTA

free! **FLOOR MANUALS**—Handy file size, each manual deals with a specific type of floor, its characteristics and care . . . asphalt and rubber tile, terrazzo, concrete, wood, linoleum.

▲ For more details circle **NED-2559** on enclosed inquiry slip ▲

NEED A GOOD SOURCE FOR TERMINALS?
WE MAKE *All Sizes, All Kinds!*

SMALLEST TO LARGEST — Hermaseal manufactures Sealed Terminals in an extremely wide range of sizes, for very low or very high voltage, with tubular electrodes for high current-carrying capacity — and with solid electrodes for moderate current requirements.

COMPLETE ASSEMBLIES — We have facilities for soldering terminals to your transformer covers — evacuating and pressure filling enclosures.

NEW CATALOG — Just off the press, a new catalog with descriptions and specifications for most of Hermaseal's stock sizes and designs. Write for your copy today!

Hermaseal

THE HERMASEAL CO., Inc.
Elkhart 20, Indiana

For more details circle NED-2560 on enclosed inquiry slip

MAKE THIS
FIRE TEST
WITH CABOT'S
ANTI-PYRE PAINT

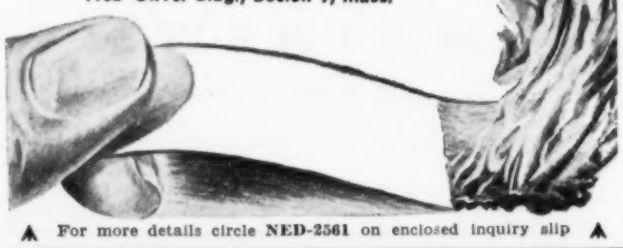
Prove it yourself. Set fire to this paper sample, watch the flames snuff out when they reach Cabot's Anti-Pyre.

PROTECTION FOR SCHOOLS, FACTORIES, INSTITUTIONS

Cabot's Anti-Pyre is a non-toxic, effective fire retardant paint producing a smooth, uniform white finish, free from brush marks. Can be tinted.

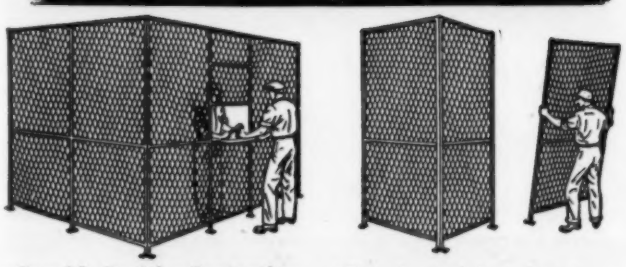
WRITE TODAY for your free test paper sample and descriptive folder.

SAMUEL CABOT INC.
1132 Oliver Bldg., Boston 9, Mass.



For more details circle NED-2561 on enclosed inquiry slip

Protect TOOLS AND EQUIPMENT WITH ACORN WIRE MESH PARTITIONS



•Provide Positive Protection
Acorn Wire Mesh Partitions, by enclosing tool cribs and stock rooms, prevent tool and parts pilfering, give tight control of tools, material and personnel in these areas. Divide large open spaces into efficient, separate departments, cut down confusion. Cost much less than solid walls, permit passage of light, air, sound and heat.

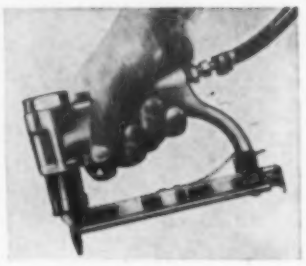
•Simple, Quick to Erect
Made in inexpensive standard panels in two designs. Acorn Wire Mesh Partitions are easy to erect, take down, or move anywhere, with no need to move radiators or lights. Can be added to, or reduced in size. Doors can be moved, and corners made quickly to meet changing needs.

ACORN
WIRE and IRON WORKS
5910 S. Lowe Ave., Chicago 21, Ill.

SEND TODAY for fully illustrated catalog. See why Acorn partitions are standard equipment in over sixteen thousand plants.

For more details circle NED-2562 on enclosed inquiry slip

AIR-POWERED TACKERS
2-lb tools are trigger operated



With air doing the driving job, power of Duo-Fast direct-drive air tackers can be regulated by adjusting the air pressure. Twelve models in the line have a minimum of working parts, weigh 2 lb and are trigger-operated. Various models drive staples from $\frac{5}{32}$ to $\frac{9}{16}$-in. long. Made by **Fastener Corp.**, 876 Fletcher St., Chicago 14, Ill.

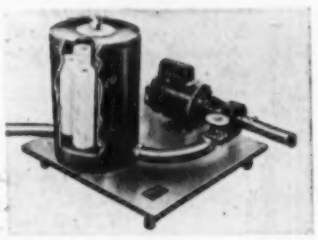
For more details circle NED-2563 on enclosed inquiry slip

VOLT-AMMETER
pocket-size snap-around type

Nine ranges up to 300 amp and 600 v are incorporated in the snap-around type pocket-size volt-ammeter. The Amprobe 300 can be used to measure current instantly without shutting down equipment or making ammeter connections. Ranges are: 0-6/15/30/60/150/300-amp ac and 0-150/300/600-v ac. Voltage test leads have retractible safety plug which automatically insulates itself when removed from the meter and jaws are insulated down into the sockets. Leads and leather case are furnished. Made by **Pyramid Instrument Corp.**, Dept. NED, Lynbrook, N. Y.

For more details circle NED-2564 on enclosed inquiry slip

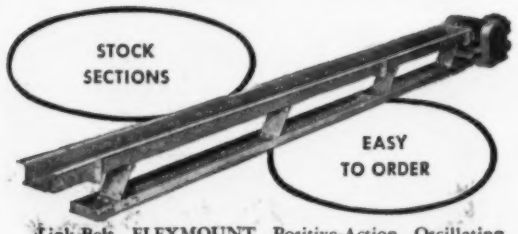
FILTER PUMPS
for acid and alkaline solutions



Model ASI-400, rated at 400 to 500 gph, and model ASI-600, rated at 600 to 850 gph, comprise this line of filter pumps for filtration of practically any acid or alkaline solution from 1 to 14 pH. Pump and all fittings are type 316 stainless steel. Filter assembly is Sethrin synthetic resin which is chemically inert and resists distortion to 220° F. Volute type centrifugal pumps have enclosed ball bearing induction motor and are mounted on heavy Bakelite panels with ball bearing rubber-covered casters. Twelve foot lengths of chemical inlet and outlet are supplied. Made by **Sethco**, Dept. NED, 70-78 Willoughby St., Brooklyn 1, N. Y.

For more details circle NED-2565 on enclosed inquiry slip

NOW! FLEXMOUNT
Oscillating Conveyors
available from stock!



Link-Belt FLEXMOUNT Positive-Action Oscillating Conveyors offer unique advantages on a wide range of hard-to-handle materials—fine, lumpy, stringy... materials in food- and chemical process industries... sharp, oily chips and turnings... hot sintered materials, etc. Uniform, gentle flow is achieved with Positive-Action. Leak-proof, all-metal trough can be made dust-tight. Extremely compact, low in operating costs.

WRITE FOR BOOK 2478

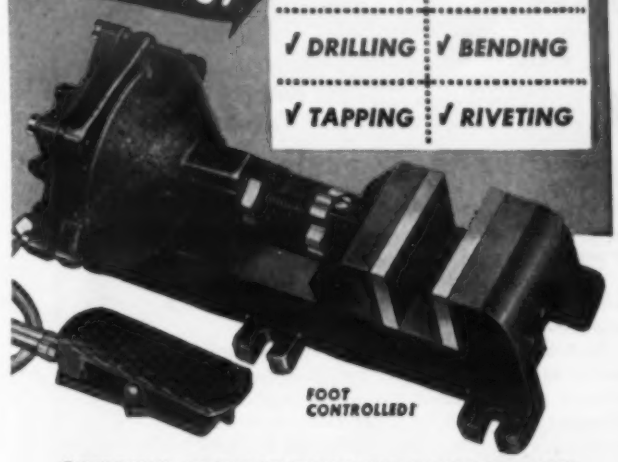
LINK-BELT

LINK-BELT COMPANY Plants: Chicago, Indianapolis, Philadelphia, Atlanta, Houston, Minneapolis, San Francisco, Los Angeles, Seattle, Toronto, Springs (South Africa), Sydney (Australia). Sales Offices, Factory Branch Stores and Distributors in Principal Cities. 12,987

For more details circle NED-2566 on enclosed inquiry slip

SPEEDY AIR VISE

SPEEDS UP
✓ MILLING ✓ PUNCHING
✓ DRILLING ✓ BENDING
✓ TAPPING ✓ RIVETING



GRIPPING FORCE 15 TIMES AIR LINE PRESSURE

Speedy Air Vise helps you do dozens of operations faster, better, cheaper—by air pressure! Foot control valve opens and shuts vise instantly, leaving *both* hands free to produce *more!* Jaw opens up to 3 inches, holds castings, parts, jigs, etc. Compact and trouble-free.
Complete with Foot Control, Air Hose and Fittings.....only **$29.90**

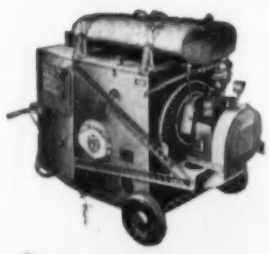
Prompt Delivery from Your Supplier or Write Direct
W. R. BROWN CORPORATION • 2647 N. Normandy Ave. • Chicago 35, Ill.

AIR REGULATORS • AIR FILTERS • AIR GUNS • PORTABLE COMPRESSORS

For more details circle NED-2567 on enclosed inquiry slip

EMERGENCY HEAT
QUICK··· SAFE··· PORTABLE!

● You can avoid layoffs, speed work in cold areas, provide temporary heat for warehouses with Herman Nelson Portable Heaters. They also provide auxiliary heating for those extra cold days or during loading or unloading operations and for scores of other heating and drying jobs.



HERMAN NELSON STANDARD MODEL
Capacity 250,000-385,000 BTU/hr. Gasoline engine powered. Self-contained for areas lacking electricity. Other models available—electric powered — with capacities from 125,000 to 450,000 BTU/hr.

The only completely safe portable heater that uses flexible ducts to spot heat where most needed—and remember, only uncontaminated air heaters are absolutely safe!

Models as low as $360.00 —total cost often saved during first season. For full information, write Dept 113, Herman Nelson Division, American Air Filter Company, Inc., Moline, Illinois.

For more details circle NED-2568 on enclosed inquiry slip

STOP LEAKS

Leaks in concrete walls, masonry, cinder block, etc. can be stopped quickly with FLEXTITE. Actually seals against water pressure. Efficient as a trowel coat for sealing off water and dampness. Transforms leaky basement walls into dry surfaces. Used in elevator pits, tunnels, dams, tanks, retaining walls, etc. (Minimum quan. 6 gal.)

MAIL COUPON for TRIAL OFFER

FLEXTITE

FLEXROCK COMPANY • *Offices in Principal Cities*
3603-F Filbert St., Philadelphia 4, Pa.

Please send me complete FLEXTITE information and details of TRIAL ORDER PLAN — no obligation.

Name .....
Company .....
Address .....

For more details circle NED-2569 on enclosed inquiry slip

MARKED in Aluminum Ink*

—ideal for dark metallic surfaces

Marking steel drums, tools, parts, pipes, etc. is smooth sailing with the Flo-master Felt-Tip Marker. It marks on any surface—glass, wood, plastic, etc.

*The complete range of ten colors in Flo-master Inks permits speedy and accurate identification for assembling, stocking, inspecting.

Flo-Master semi-opaque inks—waterproof, non-smudging, fast-drying—are recommended for hard-to-mark surfaces using the KING SIZE Flo-master (illustrated). For general purpose marking—cartons, cases, etc.—use Transparent Inks with POCKET SIZE Flo-master.

Contact your supplier or write direct to—
Cushman & Denison Manufacturing Co.,
153 West 23rd Street, New York 11.

Flo-master
FELT-TIP MARKER

▲ For more details circle NED-2570 on enclosed inquiry slip ▲

DETECTO SCALES

There's a precision-accurate Detecto Scale for your specific weighing and counting need. The Detecto helps increase production, yet assures you maximum accuracy by making slightest weight discrepancies immediately visible.

DETECTO POST-O-METER

Another Detecto Scale that protects your profits. With the Detecto Post-O-Meter, you just press a key and get one precise to-the-penny magnified figure. Thermo-lastic spring compensates for temperature changes.

Write for Catalogue

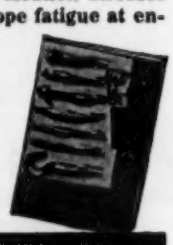
DETECTO SCALES • INC.
MAKERS OF FINE SCALES SINCE 1900
541N PARK AVE. • BROOKLYN 5, N.Y.
SCALE ENGINEERS IN ALL PRINCIPAL CITIES

▲ For more details circle NED-2571 on enclosed inquiry slip ▲

POSITIVE GRIPS
THE "HAMMER-LOCK" and Electroline FITTINGS

The "Hammer-Lock" has long been a favorite grip of wrestlers. But just as popular, in Industry, is the Electroline Fitting . . . these safe, economical, permanent wire-rope connectors may be installed by unskilled labor in a matter of minutes with ordinary mechanic's tools.

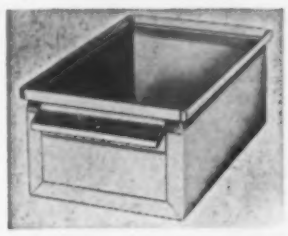
Electroline Fittings slash re-roping costs—and prolong wire-rope life by damping vibration stresses and overcoming rope fatigue at entrance to the fitting. Send for catalog describing "positive-grip" Electroline Fittings!



Electroline Company
4121 SOUTH LA SALLE STREET
CHICAGO 9, ILLINOIS
IN CANADA: POWERLITE DEVICES, LTD., TORONTO

▲ For more details circle NED-2572 on enclosed inquiry slip ▲

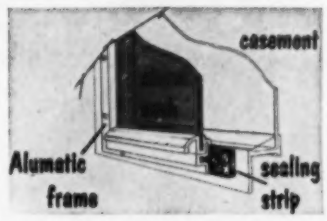
STRAIGHT SIDE STACKING BOXES
pile and store in minimum of space



Quick and safe handling of material during shop production operations is facilitated by line of straight side stacking boxes made in 16, 18 and 20-gage welded steel. Stacking feature allows boxes to be piled and stored in minimum of space. Heavy steel handles with hook holes are welded to each end. Boxes are available in eight standard sizes up to 22 x 12 x 8 in. and have plain steel or baked green finish. Made by **Platt & Labonia Mfg. Co.,** 72 Broadway, North Haven, Conn.

▲ For more details circle NED-2573 on enclosed inquiry slip ▲

CASEMENT STORM SASH
rides with casement as it swings



Frame of this storm sash for commercial casement windows is permanently attached to the window with a weathertight sealing strip. The storm sash, consisting of a frame and the sash itself, "rides" with the casement as it swings in or out. The double glass barrier formed cuts down heat loss during the winter and keeps out heat in the summer. Sash units are custom-fitted and are made of extruded aluminum. Made by **Alumatic Corp. of America,** Dept. NED, 2081 S. 56th St., Milwaukee 14, Wis.

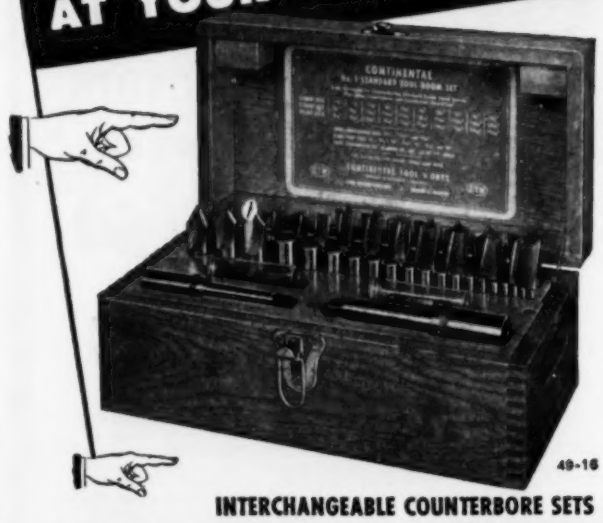
▲ For more details circle NED-2574 on enclosed inquiry slip ▲

LIGHTPROOF SHADE UNIT
converts ordinary room to darkroom

Ordinary rooms are converted into photographic darkrooms by Bar-Ray lightproof shades which exclude light so effectively that x-ray films and sensitive photographic plates can be exposed without damage. Shades can be installed without interfering with room ventilation. Features include dustproof metal housing for roller and cloth, deep metal side guides for light-tightness, braces to prevent shade blowing and guides for level movement of operating bar. Stitchless shade is crack and fadeproof, fireproof, dust-free and hygienic. Made by **Bar-Ray Products, Inc.,** 211 25th St., Brooklyn 32, N. Y.

▲ For more details circle NED-2575 on enclosed inquiry slip ▲

A TOOL BOX AT YOUR FINGERTIPS



INTERCHANGEABLE COUNTERBORE SETS

Continental Interchangeable Counterbore sets give you a wide variety of cutting tools in a compact, convenient form. Three sets are available, for the large or small toolroom. Each set features the famous Continental indestructible drive that will not stick, will not break, and is always hand detachable. Full details are given in Bulletin D27161. Send for your copy.

CONTINENTAL TOOL WORKS
Division of Ex-Cell-O Corporation
Detroit 32, Michigan
CTW

▲ For more details circle NED-2576 on enclosed inquiry slip ▲

What's Your Pro

● oil or coolant filtrati and handling?
● raw materials han ng?

Honan-Cra s the Right Sol ion

All Honan-Crane Equipment is Sold on a Performance-Guaranteed Basis

WORLD LEADING OIL FILTER MANUFACTURER

Ma his Cou
PLEASE SEND M REE
Name.....
Company.....
Address.....
City.....

Honan-Cane
A Subsidiary of Houdille

▲ For more details circle NED- on encl

MATHEWS CO V
GENERAL OFFIC
MATHEWS CONVEYER COMPANY . . . . WOOD
PACIFIC COAST DIVI N
MATHEWS CONVEYER COMPANY WEST COAST SAN
CANADIAN DIVISI
MATHEWS CONVEYER COMPANY, LTD. . . . P

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Problem?

- filtering systems for jet or piston-engine test cells?
- chip, abrasive or other waste removal?

These two folders tell how Honan-Crane equipment solves your filtration and handling problems and pays for itself out of savings; they give full information about Honan-Crane Engineering Service and production facilities for special installations.

Mail this Coupon for Your FREE Folders

SEND ME FREE FOLDERS DESCRIBED ABOVE.

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.....State.....

Honan-Crane Corp., 405 Wabash Avenue, Lebanon, Indiana
Louisville-Hershey Corporation

NED-... on enclosed inquiry slip

NEW CATALOG No. 852

32 PAGES OF BIG IDEAS IN CONVEYERS AND CONVEYER SYSTEMS

As easy to read as any picture book . . . with few words, but almost a hundred installation pictures of conveyers and conveying systems in action . . . handling materials efficiently for some twenty-five classes of American and Canadian industry.

If you are at all interested in conveyers or conveying systems, you will want to have your own copy of Catalog No. 852. Write for it today.

It's free . . . no charge or obligation.

MCC CONVEYERS
OFFICE . . . WOOD CITY, PENNSYLVANIA
WEST DIVISION . . . SAN CARLOS, CALIFORNIA
DIVISION . . . PORT HOPE, ONTARIO

...le NED-... on enclosed inquiry slip

COMPARE THESE METHODS

WHEREVER THIS GOES ON
CONVERT TO WORK-O-MATIC*

for big production gains!

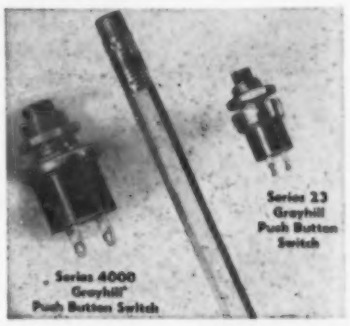
The Work-O-Matic drop-bottom box and positioning stand are engineered as a team to avoid tiring, non-productive waste motion. See for yourself how production increases up to 50% and more are common! Write to The Union Metal Manufacturing Co., Canton 5, Ohio, for Folder MH-809 and typical T & M Studies.

*Patent No. 2,445,038. Other patents pending.

UNION METAL
Materials Handling Equipment

...rcle NED-... on enclosed inquiry slip

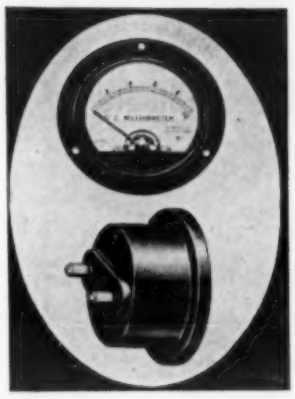
PUSHBUTTON SWITCH
measures only 1.047 in. long



Only ½-in. wide this series No. 23 pushbutton switch measures 1.047 in. from end of plunger to end of terminal tips. It is normally-open type, has a single-pole single-throw momentary contact arrangement and is rated ¼-amp on 115 v ac, noninductive. Designed for single hole-panel mounting, switch has a 5/16-32 thread. Made by **Grayhill,** Dept. NED, 4524 W. Madison St., Chicago 24, Ill.

For more details circle NED-2580 on enclosed inquiry slip

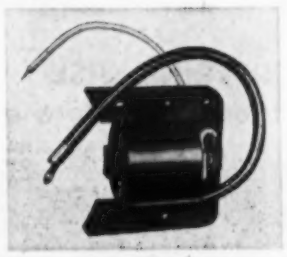
SHOCKPROOF METERS
readable under vibration or shock



Shock mounted in low temperature rubber compound and bonded to case, movements of 2½, 3½ and 4½-in. meters are rigidly held under vibration or shock. Pointer and scale divisions can be easily read under vibration. Jewels are mounted in solid metal core, and pivots are mechanically fastened on inside of moving coil. Case rear panel has screw type terminals to eliminate soldered connections. Both alternating and direct current instruments are available in ranges to suit practically any need as microammeters, milliammeters and voltmeters. Made by **Hickok Electrical Instrument Co.,** 10547 Dupont Ave., Cleveland 8, O.

For more details circle NED-2581 on enclosed inquiry slip

UTILITY ENGINE COIL
for use on most makes and models



Permanently sealed against heat, moisture, gasoline, oil, icing and dirt, the Aero Sealed Spark coil for most makes and models of four-cycle utility engines need never be replaced. It is highly practical for use on engines subject to adverse operating conditions, or where they are operated automatically or left unattended for extended periods of time. Terminal and high-tension leads are designed for quick installation on all types of engines. Made by **Nathan R. Smith Mfg. Co.,** 107 Pasadena Ave., South Pasadena, Calif.

For more details circle NED-2582 on enclosed inquiry slip

NEW IMPROVED TRI-SAW ALL-PURPOSE PORTABLE POWER HACKSAW

ZIPS THROUGH WOOD, SHEET METAL, HEAVY METAL, NAILS, PIPE, Etc., IN SECONDS!

NO INCREASE IN PRICE
Only $37.50
Makes any cutting job easy, quick, economical!

Use this sensational time and work-saving tool and you'll say it is the best portable all-purpose saw on the market! Only Tri-Saw gives you all of these exceptional features:

- Fits ¼" or 5/16" h. d. drill
- Variety of blades for every cutting need
- Balanced pistol grip design
- One shot lubrication
- Simple construction
- No side torque or spin
- Cuts directly into floors and walls without starting hole

ATTENTION! JOBBERS AND DEALERS
Profitable possibilities for aggressive distributors. Write today for details.

MANUFACTURED BY
TRI-SAW CORPORATION
6611 CLAYTON ROAD • ST. LOUIS 17, MISSOURI

For more details circle NED-2583 on enclosed inquiry slip

SMALL PARTS USERS!

NEW FOLDER tells how you can CUT COSTS

SMALL ZINC DIE-CASTINGS
1000 per lb. to 3 per lb.

- High speed production
- Simple or Intricate Parts
- Save machining, assembly operations

made in DOLLIN's Special SMALL CASTINGS DEPARTMENT

It's FREE! Write to DOLLIN CORPORATION 612 So. 21st St., Irvington 11, N. J.

For more details circle NED-2584 on enclosed inquiry slip

EVERY STEP A SAFE STEP WITH BLAW-KNOX GRATING

Everyone walks safely, confidently on Blaw-Knox Electroforged Steel Grating . . . the one-piece panels stay rigid and strong—without shimmy or shake—because there are no parts to work loose. Twisted cross bars provide sure footing under the most adverse conditions. For complete information, write for Bulletin 2365.

BLAW-KNOX GRATING
Industry's first choice for
• SAFETY • STRENGTH • LONG LIFE
• LOW UPKEEP • SELF-CLEANING

Grating Department
BLAW-KNOX DIVISION of Blaw-Knox Co.
2068 Farmers Bank Bldg.,
Pittsburgh 22, Pa.

BLAW-KNOX ELECTROFORGED STEEL GRATING

For more details circle NED-2585 on enclosed inquiry slip

Dial the combination of properties you need

Synthane laminated plastics have a wide variety of valuable mechanical, chemical and electrical properties—and have them in combination. Synthane combines, in one easy-to-machine material, light-weight, strength, chemical and moisture resistance, hardness, toughness, denseness, high dielectric strength, high dielectric constant and low power factor. And many more. Why not find out more about this unusual material today? Just clip and mail the coupon for the complete Synthane Catalog.

SYNTHANE

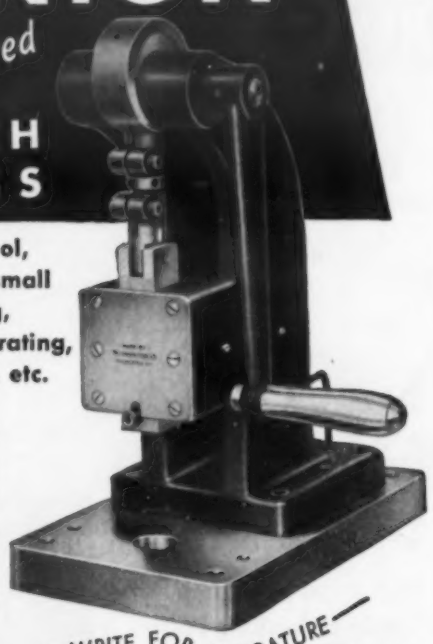
Manufacturers of laminated plastics
SHEETS
RODS • TUBES
MOLDED-LAMINATED
MOLDED-MACERATED
FABRICATED PARTS

SYNTHANE CORPORATION
North East River Road, Oaks, Pa.
Gentlemen:
Please send me the new Synthane Catalog at once.
Name_____
Address_____
City_____ Zone____ State_____

For more details circle NED-2586 on enclosed inquiry slip

UNION

Hand-operated PUNCH PRESS



• A rugged tool, suitable for small blanking, forming, perforating, assembling, etc.

Distance back from center of slide 1¾". Width of opening in back 1½". Stroke of slide ¾", adjustment 1⅛". Maximum die space 2⅛" as shown. This can be increased to any desired height by blocking up between base and bottom of press. Height overall 13½". Weight 46 lbs.

• WRITE FOR LITERATURE Dept. 11

THE UNION TOOL CO.
Precision Tool Makers
299 Norton St. • Rochester 21, N. Y.

▲ For more details circle NED-2587 on enclosed inquiry slip ▲

Invests $150.00 Saves $2100.00

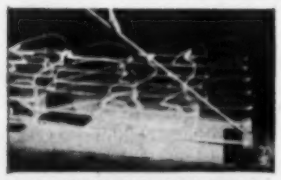
with this remarkable PARKER floor sweeper

Report from Plant X indicates way you can make substantial savings on YOUR floors

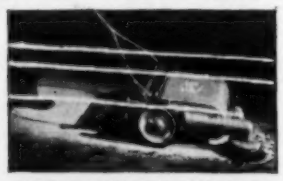
"Comparative studies on 71,256 sq. ft. of storage and shipping space yield clean-up times of eight hours against sixteen hours by the former method. In areas formerly swept by the pushbroom method the Parker sweeper yields still greater savings, some as high as 76%. An estimated $2,100 per year after taxes will be saved."

A Parker sweeper saves money, saves manpower *in any size plant* from large factory to small garage. Sweeps all type floors. Collects and sweeps in one operation. Easy to empty. *Write for full details.*

HERE'S WHY YOU SAVE FROM $10 TO $50 A WEEK



OLD PUSHBROOM METHOD
A flashlight mounted on a pushbroom vividly describes what happens when a workman uses a pushbroom. Time exposure shows change of direction. And the dirt must *still* be picked up.



PARKER SWEEPER METHOD
Continuous lines of light indicate continuous sweeping. Result: many more times the floor space swept in an hour's time. Furthermore, the dirt has been collected at the same time.

PARKER
INDUSTRIAL FLOOR SWEEPERS
Parker Sweeper Co.
66 Bechtle Ave., Springfield, Ohio

Motorized Model Parker Sweeper with 1 h.p. 4 cycle engine available for extra large, unobstructed areas.

▲ For more details circle NED-2588 on enclosed inquiry slip ▲

MATERIAL LEVEL CONTROL is pressure-operated electric unit

Applicable to supply and blending bins, storage silos, screw conveyors, elevators, hoppers and similar materials handling and storage units, this Binatrol will control level or flow. It consists of Neoprene diaphragm which actuates a 15-amp switch when pressure moves it 1/32-in. Only slight pressure is required to operate unit. It can be installed singly or in multiple to indicate "full" or "empty," to signal start of material chock-ups, to assure even flow of material and many other similar operations. Made by **Tate & Roe, Inc.,** Dept. D, 5542 Dyer St., Dallas, Tex.

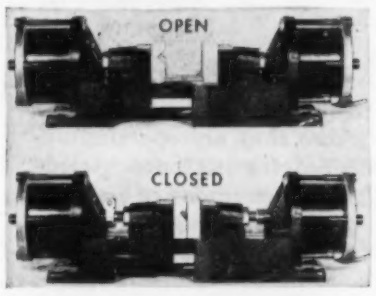
▲ For more details circle NED-2589 on enclosed inquiry slip ▲

THREAD PROTECTORS can act as lubrication retainers

External and internal threads and surfaces of machined parts can be protected against damage as well as dust, grit or rust by these thread protectors which are custom-fabricated from kraft, fish paper, cellulose acetate or combination. Acid-free and noncorrosive, they keep out oil or grease, or can act as lubrication retainers. Any shape or size can be formed, crimped or perforated to fit irregular parts. Expendable types are standard, but special materials can be incorporated to withstand repeated handling. Tolerances are within 0.003 in. Protectors can be imprinted with identifying text during manufacture. Made by **Precision Paper Tube Co.,** 2039 W. Charleston St., Chicago 47, Ill.

▲ For more details circle NED-2590 on enclosed inquiry slip ▲

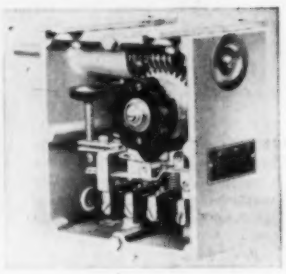
CENTERING VISE easily centers odd-shaped materials



Time savings in finding centers on runs of odd-shaped pieces can be realized through use of the Centr-Finder vise. The jaws travel on guides, their movement being mechanically synchronized. Operation is on 5 to 100 psi air pressure for clamping pressures up to 2000 lb. In operation, the jaw tolerance from the established center line is plus or minus 0.001-in. at any dimension of jaw closing, with a working range of 0 to 4 in. Center of the workpiece within this range is brought within the 0.001-in. of the established centerlines, both horizontally and vertically. Made by **Black Drill Co.,** 1380 E. 222nd St., Cleveland 17, O.

▲ For more details circle NED-2591 on enclosed inquiry slip ▲

ROTARY LIMIT SWITCH limits travel of rotating devices



For control of such equipment as electrically operated doors, hoists and valves, style L-3464 rotating limit switch operates by limiting the travel of their rotating parts. This type of switch co-ordinates reversing operations with the rotation of the motor shaft, or other operating shaft, to break contact, timing of which is governed by a preset number of shaft revolutions. Mechanism consists of two separate switching units, each operated by a cam. The switch is easily adjusted to open either of the two normally closed contacts by changing the relative positions of the cam. All terminals and adjustments are easily accessible. Made by **Furnas Electric Co.,** 1009 McKee St., Batavia, Ill.

▲ For more details circle NED-2592 on enclosed inquiry slip ▲

This is the IMPACT WRENCH THEY'RE ALL TALKING ABOUT!

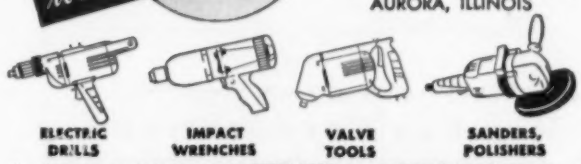
IT'S A Thor

⅜" and ½" bolt capacities. Complete kits available for nut setting, drilling, tapping, etc.

Cuts motor and chassis work up to 30%! Saves muscle, time! Loosens tightest nuts in a jiffy, seat them firmly . . . fast! Mechanics like sturdy Thor construction. You'll like it, too!

Buy Good tools Thor

PORTABLE POWER TOOLS
INDEPENDENT PNEUMATIC TOOL CO.
AURORA, ILLINOIS



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Molded On Rubber Tired Wheels

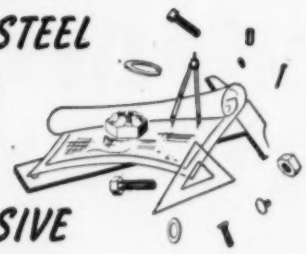
THOMAS
MAKES 1000 DIFFERENT KINDS OF CASTERS & WHEELS
Write for complete catalog and price list

Pneumatic and Cushion Wheels

THOMAS TRUCK & CASTER CO.
322 MISSISSIPPI RIVER
KEOKUK, IOWA

▲ For more details circle NED-2594 on enclosed inquiry slip ▲

When you think of
STAINLESS STEEL FASTENINGS
think first of
ANTI-CORROSIVE



Anti-Corrosive has millions of stainless steel fastenings *in stock* for immediate delivery . . . plus exceptional production capacity that can fill your requirements beyond stock items faster, *better!*

FREE — Write for Slide-Chart 52U which instantly identifies A-N nos. pertaining to stainless fastenings.

25 YEARS OF LEADERSHIP IN FASTENINGS OF STAINLESS STEEL

Anti-Corrosive Metal Products Co. Inc
Manufacturers of STAINLESS STEEL FASTENINGS
CASTLETON ON HUDSON NEW YORK

▲ For more details circle NED-2595 on enclosed inquiry slip ▲

FOR YOUR EXPANSION PROBLEM...

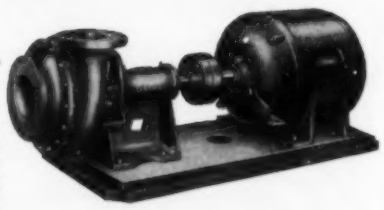
If you are faced with an expansion problem, chances are you'll find the Zallea Expansion Joint best suited to your needs in this handy, fact-filled folder. It describes completely the full line of Zallea Expansion Joints—from a small 4" connector to a huge 30-foot specially fabricated wind tunnel unit. Write for a copy today. Zallea Brothers, 818 Locust Street, Wilmington 99, Delaware.

Zallea

For more details circle NED-2596 on enclosed inquiry slip

One pump that does many different jobs

- General Water Service
- Slurries
- Factory Wastes
- Transfer
- Processing
- And Many Others



GOULDS Fig. 3169—Single-stage open-impeller centrifugal pump. Available with motor or belt drive. Capacities to 1080 G.P.M. Heads to 290 ft.

GOULDS centrifugal pumps (Fig. 3169) offer tremendous versatility. Their modern hydraulic design assures high operating efficiency with relatively low-power consumption. Their simple, sturdy construction spells long service life and low maintenance. Interchangeable parts reduce inventories. Call your Goulds representative for full details, or write for Bulletin 720.4.

Goulds PUMPS INC. Seneca Falls New York

For more details circle NED-2597 on enclosed inquiry slip

ENGRAVING and MARKING

ENGRAVES, ROUTS PROFILES and MODELS

A real money saver for industry. Proven by the experience of tool and die, electronic machine, radio, electrical and instrument manufacturers.

The Green Engraver zips out precision work on metal, plastics, wood, glass, hard rubber etc. . . . engraves panels, name plates, scales, dials, molds, lenses, instruments, instruction plates, directional signs . . . by simple tracing. *Routing, profiling and three dimensional modeling indicate its versatility.* Electric etching attachment available.

DIAL STENCIL

DIRECTIONAL SIGN

BARREL DIAL

Specify the Green Engraver for the best in low cost performance. Special attachments and engineering service available for production work.

FREE — Fact-packed folder yours upon request.

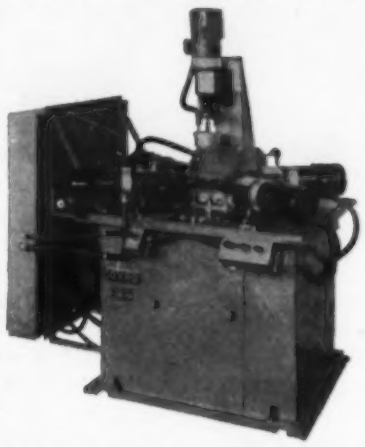
Green Instrument Co. INCORPORATED

375 PUTNAM AVENUE CAMBRIDGE 39, MASS.

For more details circle NED-2598 on enclosed inquiry slip

DRILLING MACHINE locates and drills seven holes

Incorporating six model KH self-contained automatic drilling units, this machine drills seven holes at one time, and insures the proper location of holes in pieces being drilled. Five radial holes and two parallel holes are drilled at the rate of 500 parts, or 3500 holes, per hour. Pressing of button after loading automatically clamps, drills and unclamps the part. Position of parts can be varied for adapting machine to other drilling operations. Made by **Govro-Nelson Co.**, 1935 Antoinette St., Detroit 8, Mich.



For more details circle NED-2599 on enclosed inquiry slip

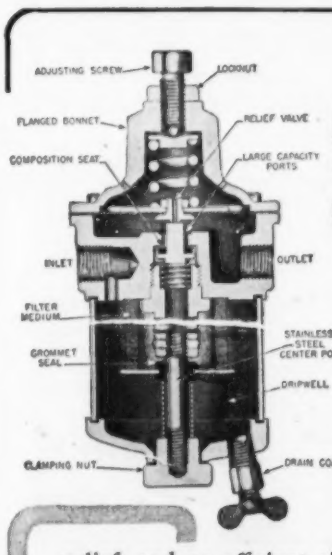
STACKING TRUCK designed for side discharge

Capable of lifting and stacking any cylindrical object with a core hole, this JackStacker electric stacking truck is designed for side discharge. Capacity is 1100 lb. It can operate in 38½-in. aisles and, with the adjustable carriage boom, can handle rolls from 53 to 88 in. long. Lowered height to the lifting hooks is 8 in. and the lifting height is 8½ ft. Stabilizing casters give additional support. Side motion of lifting arms is 31 in. on either side of center line. Control is from the handle head. Made by **Lewis-Shepard Products**, Dept. R-1, Watertown 72, Mass.

For more details circle NED-2600 on enclosed inquiry slip

DO YOU KNOW? A soft, sparkling metallic effect in pastel or white shade can be imparted to any plastic product by pearlescent finish. Applicable to surface of colored polystyrene, acrylic or other plastics or to reverse side of clear plastic parts, finish will pass the Scotch Tape test for adhesion; will withstand exposure to moisture; sunlight and abrasion; and will not chip or grow brittle with age. Made by Bee Chemical Co., Dept. 2, 13799 South Ave. O, Chicago 33, Ill.

For more details circle NED-2601 on enclosed inquiry slip



DOUBLE VALUE

CONO AIRPAK

—REGULATES

—FILTERS

IN A SINGLE UNIT

The advantages of a high quality large capacity reducing valve with safety relief, and an efficient air filter, are combined in a single compact unit. Save space and installation costs by eliminating the use of separate units. Pressure gauge can be mounted integrally. Construction is rugged, corrosive resistant and long lasting. Available in a variety of ranges and dripwell capacities for production equipment, instruments and controls, spraying equipment, and pneumatic gauges. Write for BULLETIN FH-15 to get full details.

CONOFLOW CORPORATION 2100 ARCH ST. PHILADELPHIA 3, PA.

Cono-Controls

CC-116

For more details circle NED-2602 on enclosed inquiry slip

Let Farval do your lubricating and step up machine production

THROUGH efficient, dependable lubrication of machines and industrial equipment of all kinds, Farval saves 4 ways: It saves oiling labor, it saves lubricant, it reduces bearing expense, and most important of all, it eliminates down time, thereby increasing machine production.

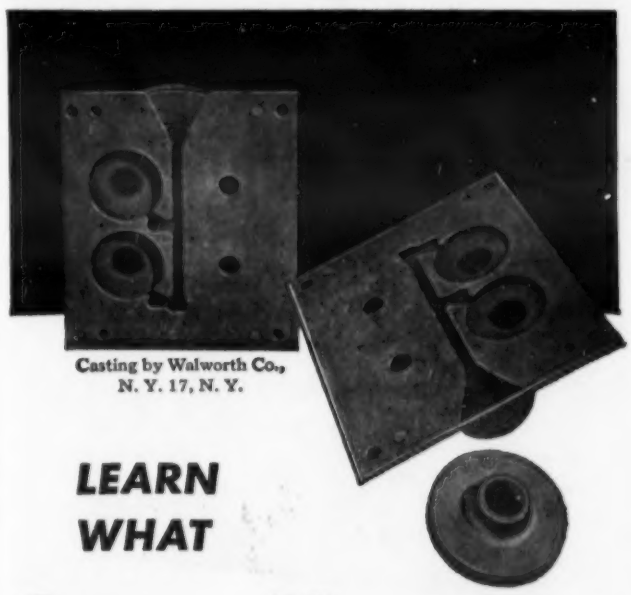
The Farval System is a positive mechanical method of delivering oil or grease under pressure to a group of bearings from one central station, in exact quantities, as often as desired. It consists of a central pumping unit, automatic or manually operated, two main supply lines and a measuring valve for each bearing.

"Case Studies 1952" and Bulletin 25 give you the facts and figures. Write to The Farval Corporation, 3283 East 80th Street, Cleveland 4, Ohio.

Write for these FREE bulletins

FARVAL CENTRALIZED SYSTEMS OF LUBRICATION

For more details circle NED-2603 on enclosed inquiry slip



Casting by Walworth Co., N. Y. 17, N. Y.

LEARN WHAT SHELL MOLDING means to your operations

When you design ferrous and non-ferrous metal parts, be sure your plans take the *shell molding* process into consideration. This new method of foundry casting can bring real economic benefits. For instance,

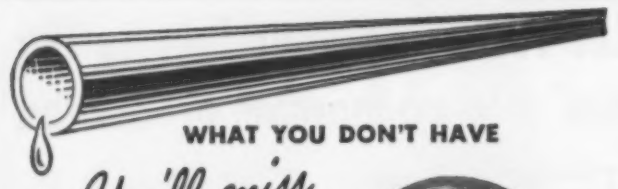
- Pieces are cast to closer finished dimensions—tolerances as close as .003 to .005 inches per inch.
- Less machining means lower production costs.
- Castings have almost pattern-smooth surfaces.
- Higher percentage of sound, uniform castings results in fewer rejects.

Thin, lightweight shell molds made of fine-grained sands bonded with BAKELITE Phenolic Resins are the feature of this process. Your foundrymen can tell you how it can serve your needs. Write Dept. EN-53 for information on the BAKELITE Phenolic Resins developed expressly for shell molding.

BAKELITE TRADE-MARK PHENOLIC RESINS FOR SHELL MOLDING

BAKELITE COMPANY
A Division of Union Carbide and Carbon Corporation
UCC
30 East 42nd Street, New York 17, N. Y.
In Canada: Bakelite Company (Canada) Ltd., Belleville, Ont.

For more details circle NED-2604 on enclosed inquiry slip



WHAT YOU DON'T HAVE

You'll miss

ROCKWELL
Industrial
METERS

Control

FORMULAS, COSTS, INVENTORIES OF ALL LIQUID STOCKS

Rockwell meters are lastingly accurate guardians, wherever liquids are stored, transported or utilized. You can install them with profit when batch mixing formulas; for inventory records, for cost control. There's a size and type for every need. Write for bulletin.

ROCKWELL MANUFACTURING COMPANY

DEPT. C6, 400 N. LEXINGTON AVE., PITTSBURGH 8, PA.

For more details circle NED-2605 on enclosed inquiry slip

Industrial CRANES

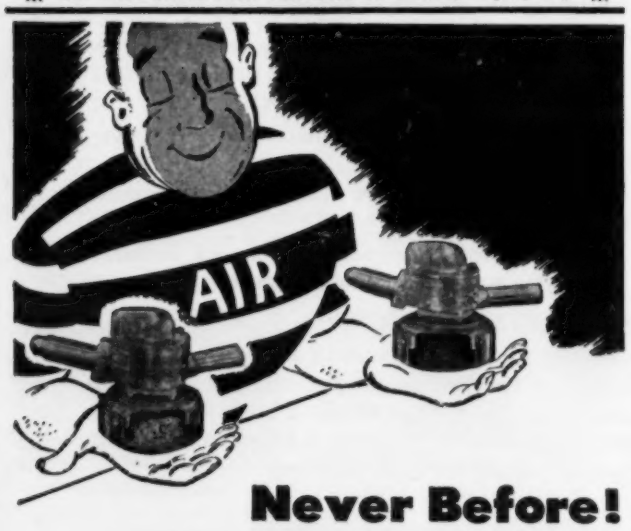
HANDLE MATERIAL TO AND FROM OPEN CARS, TRUCKS AND MACHINES AT LOWER COST

Pillar Cranes Up to 6 Tons Rotate 360 Degrees

Industrial CRANES

INDUSTRIAL EQUIPMENT CO.
327 NORTH ADA STREET CHICAGO 7, ILLINOIS
Write for Catalog. Representatives in Principal Cities.

For more details circle NED-2606 on enclosed inquiry slip



Never Before!

. . . SO MUCH POWER PER POUND

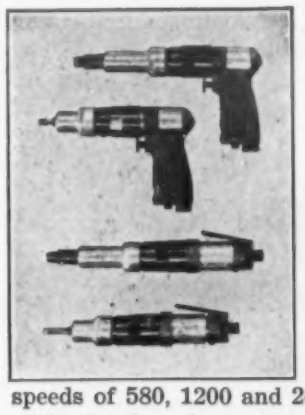
MEET the new Rotor Vertical Air Grinders! Never before have you had so much power in vertical air grinders . . . for such light weight! They're well balanced . . . easy on the operator. Here are *new* features to speed up your metal removal. *Write today for Bulletin No. 40.*

AIR O'TOOL

THE ROTOR TOOL CO.
CLEVELAND, OHIO

For more details circle NED-2607 on enclosed inquiry slip

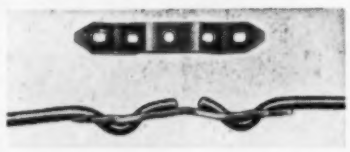
AIR-DRIVEN SCREWDRIVER
midget model also runs nuts



Assembly or subassembly operations calling for driving of nuts, bolts and screws can make use of this series of midget-size air-driven screwdrivers and nut-runners. Models available can handle screws up to No. 12 and nuts and bolts up to ¼-in. diameter bolt size. Three types of clutch mechanisms are adaptable to free speeds of 580, 1200 and 2400 rpm. Tools can be fitted with pistol or lever type throttle handles and have spindle adapters for both screwdriver bits and nut socket adapters for a total of 36 different models. They operate on 80 to 100 lb air pressure. Made by **Master Pneumatic Tool Co.**, Peneman Rd., Orwell, O.

For more details circle NED-2608 on enclosed inquiry slip

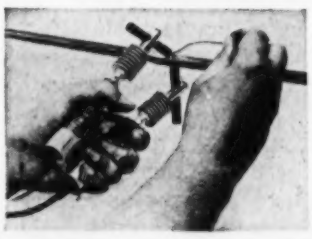
WIRE SPLICING UNIT
connects coils for patenting



Fast, efficient means of connecting ends of wire coils for drawing through patenting furnaces is provided by model R-210-187E Guillotine splicer unit and splicer clips. To connect coil ends, the operator slips the wire end into a clip, inserts it into the splicer, then straightens the clip by means of thumb button-operated hydraulic pressure. Procedure is completed by repeating this operation on the other wire end. Clips are cut off after patenting. Splicer unit has an available thrust of 10 tons and the operating cycle is 1 second. It operates from a 2 hp, 220/440 v, three-phase, 60-cycle motor driving a pump with 25 ft of hydraulic hose. Two splicing clip sizes are available. Made by **Manco Mfg. Co.**, Washington St., Bradley, Ill.

For more details circle NED-2609 on enclosed inquiry slip

SOLDERING UNIT ACCESSORY
soft solders on resistance principle



By eliminating need for separate ground connection, the Pliers Handpiece accessory for Glo-Melt soldering unit provides for greater convenience in soft soldering through the resistance principle. It is particularly suited for soldering connections on copper tubing and similar materials. Spring tensioned handpiece holds two carbon tips ground flat at angle to make good connection to both sides of any tubular joint. It will function on tubing up to ⅝-in. OD and on heavy terminals up to No. 000 AWG, and is constructed of aluminum and hard fiber. Made by **Wasserlein Mfg. Co.**, 128 W. Cass St., Joliet, Ill.

For more details circle NED-2610 on enclosed inquiry slip

TRANSFER PUMP
protects against explosion and fire

Movement of hazardous liquids from receiving drums to containers can be handled with protection against explosion and fire hazards through the use of this transfer pump. Three built-in flame arrestors are so placed as to prevent vapor explosion at the spout, above the bung adaptor and at the strainer inlet within the drum. Pump also provides for vent and pressure relief through protected openings. Self-priming unit is made of aluminum alloy with brass telescopic tube and can be attached by hand swivel grip to either side or end opening of 30 or 55-gal drums. Pumping speed is 5 gpm. Made by **Protectoseal Co.**, 1966 S. Western Ave., Chicago 8, Ill.

For more details circle NED-2611 on enclosed inquiry slip

SHIMS

nearly always come from

SHIM HEADQUARTERS SINCE 1913

LAMINATED SHIM COMPANY, INC.

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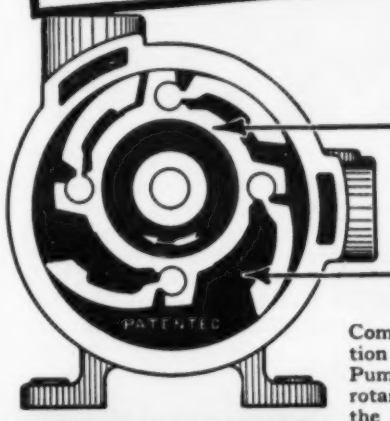
For more details circle NED-2612 on enclosed inquiry slip

LEIMAN AIR PUMPS GIVE YOU *Greater Capacity!*



HINGED WINGS *take up their own wear*

Compare this cross-section of a Leiman Air Pump with any other rotary air pump. It is the working air space that counts—and Leiman provides 2 to 3 times more area, per size and weight of pump.

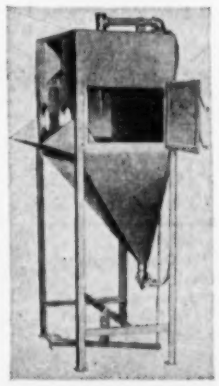
Handle air pressure, vacuum or suction jobs with much smaller Leiman Rotary Air Pumps. You save weight and space—run at lower r.p.m.—have fewer moving parts—no springs, gaskets or packings—no tips to renew—nothing to give trouble. Leiman patented leak-proof hinged wings maintain fully-rated pressure or vacuum for years and years.

What is your air application?

Send us details. Leiman engineers offer over 60 years' experience with thousands of air applications.

Catalog and Application Data sent on request. For Pumps—write DEPT. A

LEIMAN *Rotary* AIR PUMPS (Pressure—Vacuum)



Metal Cleaning and Finishing without acids or scratch brushes

Fast, low-cost, safe, uniform!

LEIMAN SANDBLASTS

Clean up scaly, rusty, rough surfaces—prepare better surface for plating, enameling or painting—stencil letters and designs—more rapid matte or satin finishes. Use unskilled help. Many models, treadle or automatic.

For Sandblasts—write DEPT. B

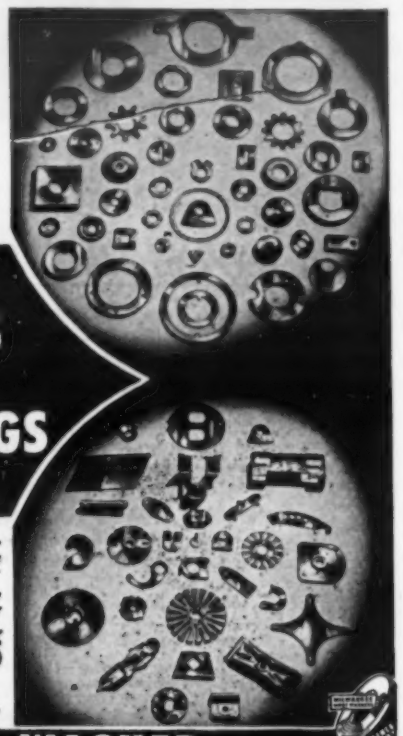
LEIMAN BROS., Inc. 167 Christie Street, Newark 5, N. J.

AIR PUMPS • AIR MOTORS • SAND BLASTS • DUST COLLECTORS

For more details circle NED-2613 on enclosed inquiry slip

Serving **INDUSTRY**

SINCE **1887**



WASHERS and STAMPINGS

Standard and Special Washers, of every description, any material, any finish, utilizing more than 22,000 Sets of Dies.

Let us Quote on Your Needs.

WROUGHT WASHER MFG. CO.
THE WORLD'S LARGEST PRODUCER OF WASHERS
2256 SOUTH BAY STREET • MILWAUKEE 7, WISCONSIN

▲ For more details circle NED-2614 on enclosed inquiry slip ▲

50 TONS OF POWER ...POSITIONED IN SECONDS!

It's a cinch with the new HEIN-WERNER model 50.12AA Hydraulic Jack

No "spotting" drudgery here! Sturdy positioning handles afford firm, secure grip . . . permit easy maneuverability. Handles fall flush against jack housing when not in use. This 50-ton HEIN-WERNER model is ideal for moving heavy machinery, bending pipe, pulling gears and pinions, and similar heavy duty jobs. It is powerful...safe... easy to use. Tandem pump speeds jacking . . . saves effort. See your industrial supply distributor or write us.

Hein-Werner HYDRAULIC JACKS

HEIN-WERNER CORPORATION • WAUKESHA • WISCONSIN

▲ For more details circle NED-2615 on enclosed inquiry slip ▲

USE HOUGHTON **Cosmolube**

*THE MULTI-PURPOSE GREASE THAT PUMPS EASILY AT

20° Below!

MEETS THE NEEDS OF EVERY INDUSTRY FOR **HOT** SPOTS—**COLD** SPOTS—**WET** SPOTS

- ★ High melting point
- ★ Won't dissolve
- ★ Resists oxidation
- ★ Adhesive to metal
- ★ Won't separate
- ★ Only one grease to buy and apply

GET LATEST BULLETIN on this heavy-duty grease that simplifies your inventory . . . Write to E. F. Houghton & Co., 303 W. Lehigh Avenue, Philadelphia 33, Pa.

COSMOLUBE
. . . a product of

E. F. HOUGHTON & CO.
PHILADELPHIA • CHICAGO • DETROIT • SAN FRANCISCO

Ready to give you on-the-job service . . .

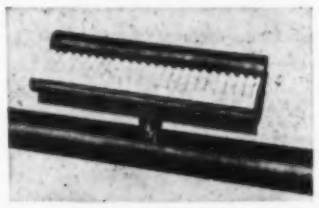
▲ For more details circle NED-2616 on enclosed inquiry slip ▲

INSPECTION LIGHT
spring cushion assures safety

Spring cushion at end of No. 121 C&E 25-w T-10 tubular inspection lamp holds it firmly for protection against jarring, breakage of filiment and glass, and loosening from the terminal. Light has heavy duty socket with cord grip clamp, rubber handle and heavy cadmium-plated guard with hook. Outside diameter is 1¾ in. It is furnished with 20 ft of No. 18-2 type S Underwriters' approved rubber-covered cord. Made by **Ericson Mfg. Co.**, 5209 Euclid Bldg., Cleveland 3, O.

▲ For more details circle NED-2617 on enclosed inquiry slip ▲

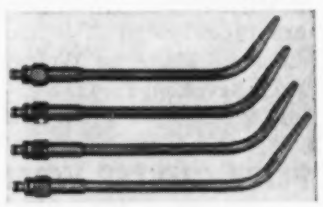
INDUSTRIAL OVEN BURNER
has wide fanning radiation



Maximum rate of heat transfer, complete combustion with resulting fuel economy and minimum of maintenance are advantages accruing from use of Radi-Heat radiant burner for such operations as drying, plasticizing, heat treating, aging, burn-off and billet heating. Refractory has wide fanning radiation and can be used in any desired length by end-to-end mounting of sectional burners on a common manifold. A wide range of mixture ratios and pressures can be obtained. It is available in capacity ranges from 7000 to 45,000 Btu per hour. Made by **Burdett Mfg. Co.**, Dept. NED, 3433 W. Madison St., Chicago 24, Ill.

▲ For more details circle NED-2618 on enclosed inquiry slip ▲

QUICK-CHANGE WELDING HEADS
have gas-tight sealing to blowpipes



Thirteen welding heads that snap in or out of Purox W-202 and W-201 blowpipes interchangeably afford gas-tight sealing by means of rubber O-rings which eliminate metal-to-metal seals between head and blowpipe. Practically any metal from 32 gage to more than 1 in. thick can be welded with appropriate blowpipe and proper head, with soft or hard flame. Heads are stamped with size and flow rate for either oxygen or acetylene gas, in cubic feet per hour at recommended operating pressures. Each head is made up of disk-type mixer, extra short mixer tube and swaged heat-and-wear-resistant copper tips. Made by **Linde Air Products Co.**, Room 308-NED, 30 E. 42nd St., New York 17, N. Y.

▲ For more details circle NED-2619 on enclosed inquiry slip ▲

LIGHTWEIGHT?

Sure! Hackney Deep Drawn Shapes and Shells give your products greater strength while they eliminate excess weight. They've been successfully used to take the place of welded pipe, heavy forgings or castings. The smooth, rounded shapes of Hackney Seamless Deep Drawn Parts take your finishes well, too —improve product appearance. Can be made in sizes from one quart to 150 gallons—with inside diameters from about 3 inches to 32 inches. Let our 50 years of experience help you solve your design problems. Write today.

PRESSED STEEL TANK COMPANY
Manufacturer of Hackney Products
1450 S. 66th St., Milwaukee 14
1324 Vanderbilt Concourse Bldg., New York 17
255 Hanna Bldg., Cleveland 15
936 W. Peachtree St., N.W., Room 136, Atlanta 3
208 S. LaSalle St., Room 779, Chicago 4
578 Roosevelt Bldg., Los Angeles 17

Hackney

CONTAINERS FOR GASES, LIQUIDS AND SOLIDS

▲ For more details circle NED-2620 on enclosed inquiry slip ▲

HORIZONTAL POWER . . .

. . . where Belt Surface Conveyors can't stand abuse of heavy metals, sharp corners or rough edges, Metzgar "Live Roller" units provide an all-metal, powered bearing surface. May be used as power booster in gravity line. Work can be slowed or held without stopping machine.

Furnished portable or permanent mounted. Choice of one to five rollers per foot. Lengths to suit. Ball bearing throughout. Gearmotor AC or DC drive.

ASK FOR FOLDER NO. 1249

4 STOCK SIZES
11½" - 15"
18" - 24"
WIDTHS

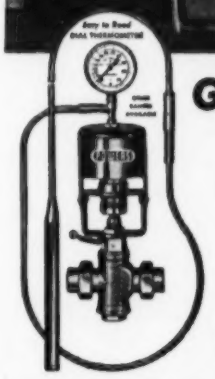
METZGAR CO.
MFGRS. OF WHEEL & ROLLER GRAVITY & LIVE ROLLER CONVEYORS • POWER BELT CONVEYORS • SWITCHES • ACCESSORIES • REEL DOLLIES & END-WOOD WHEELS.

METZGAR CONVEYORS
416 Douglas N.W.
GRAND RAPIDS 4, MICH.

▲ For more details circle NED-2621 on enclosed inquiry slip ▲

In PLATING, CLEANING and RINSE TANKS, ANODIZING, OXIDIZING, PICKLING and DEGREASING TANKS

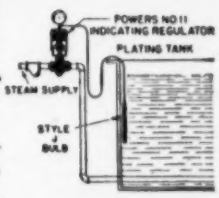
Below: Official U. S. Navy Photograph Michelson Laboratory Naval Ordnance Test Station Inyokern, Cal.



Get BETTER Control SAVE LABOR
Reduce Costs with—
POWERS

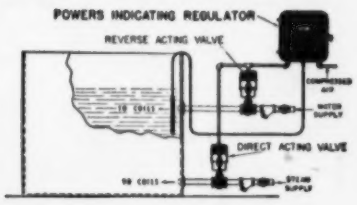
No. 11 TEMPERATURE REGULATORS

Most of the more than 30 steam heated tanks used in the Navy's modern shops shown above are automatically controlled by Powers regulators. They maintain a constant temperature, end losses caused by OVER-heating, help reduce rough plating, buffing time and decomposition of plating solutions.



Easy to Install—self-operating, have an easy to read 4" dial thermometer which shows temperature of plating solution under control. They are available with either lead sheathed or stainless steel bulbs. Bulletin 329 gives full information.

Compressed Air Operated Indicating Regulator



POWERS Series 100 Regulator

Accurately Controls heating and cooling of plating solutions

Powers has the most complete line of temperature regulators made for metal finishing operations. Contact our nearest office for further information, or

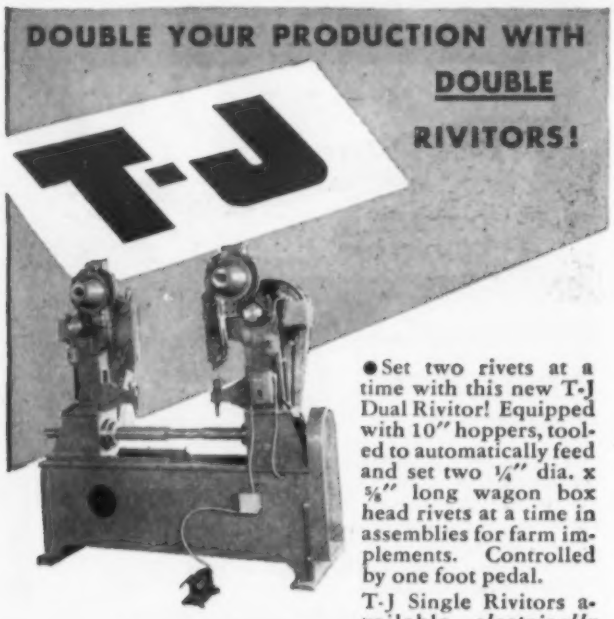
Write for Circular PLN

THE POWERS REGULATOR COMPANY
3440 Oakton Street, Skokie, Illinois (PLO)
Established 1891 • Offices Over 50 Cities • See Your Phone Book

▲ For more details circle NED-2622 on enclosed inquiry slip ▲

DOUBLE YOUR PRODUCTION WITH DOUBLE RIVITORS!

T-J



●Set two rivets at a time with this new T-J Dual Rivitor! Equipped with 10" hoppers, tooled to automatically feed and set two ¼" dia. x ⅝" long wagon box head rivets at a time in assemblies for farm implements. Controlled by one foot pedal.

T-J Single Rivitors available *electrically* powered for 1/16" to ¼" diam. solid steel rivets up to ⅞" long; *air-powered* for aluminum alloy rivets up to ¼" diam. or steel rivets up to ⅛" diam., up to ¾" long. Throat depth, 8" to 36". Write for bulletins 646 and 847. The Tomkins-Johnson Co., Jackson, Mich.

36 YEARS' EXPERIENCE (T-J)

TOMKINS-JOHNSON

RIVITORS...AIR AND HYDRAULIC CYLINDERS...CUTTERS...CLINCHORS

▲ For more details circle NED-2623 on enclosed inquiry slip ▲

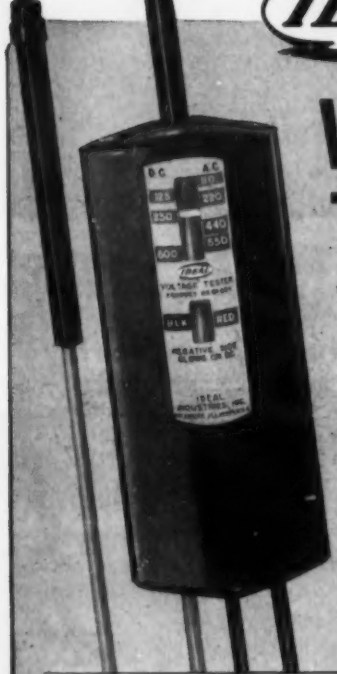
You "Designed" This One

the NEW Super Safe

IDEAL

Voltage Tester

With ALL the Features Thousands of Electrical Men Told Us They Wanted — No Other Tester Has ALL of These:



Double strength, seamless plastic case

Handier center mount for prod makes testing easier

Prod storage completely shields sharp tips

Coil layer-wound on rugged nylon spool for long, safe life

Molded rubber, moisture-tight prod handles— "No-Slip" safety rings; 30" neoprene leads

Plastic name plate bonded to case—no surface metal

Coil secured at both ends —Coil leads isolated, preventing shorts

"Fog-Free" window keeps out dirt

Plus Famous IDEAL "DOUBLE PROTECTION" . . . a solenoid, calibrated indicator AND a neon test lamp, each independent of the other—NO CHANCE OF FAILURE TO DETECT VOLTAGE

Tests 110 to 550 volts AC—110 to 600 volts DC

SOLD THROUGH LEADING DISTRIBUTORS. SEE IT NOW!

MAIL TODAY FOR FULL DETAILS

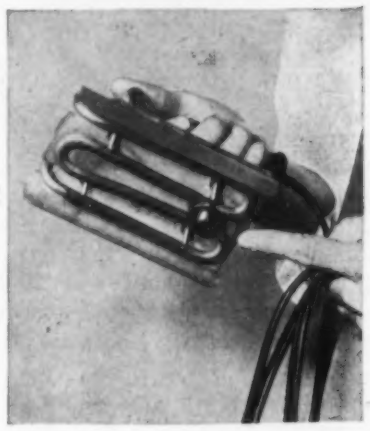
IDEAL INDUSTRIES, Inc.
1032 Park Avenue, Sycamore, Illinois

Please send me full catalog information on new IDEAL Voltage Tester

Name_____
Company_____
Address_____
City_____ Zone____ State____

▲ For more details circle NED-2624 on enclosed inquiry slip ▲

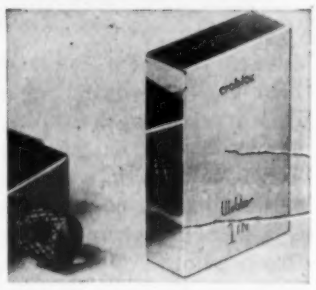
ELECTRIC PAINT REMOVER
utilizes radiant heat principle



Quick and easy paint removal is possible with this electric paint remover which consists of two skids under which is mounted a G-E Calrod tubular heater rated at 1000 w, 115 v. As remover slides along surface, radiant heat from tubes softens and blisters paint for easy removal with putty knife. Skids keep heat a safe distance from painted surface, while two metal reflectors keep plastic handle cool. Made by **General Electric Co.**, Schenectady 5, N. Y.

▲ For more details circle NED-2625 on enclosed inquiry slip ▲

CHROME CARBIDE GAGE BLOCKS
resistant to wear and corrosion



High corrosion resistance, plus a coefficient of expansion similar to that of steel are characteristics of Croblox chrome carbide gage blocks. Latter feature makes blocks easy to use since correction need not be made for difference in expansions between block and steel. Room temperature variations can thus be ignored. Blocks can also be exposed to wide range or atmospheric changes without fear of rusting. Surface finish is 0.1-microinch. Blocks are wear-resistant, light, nonmagnetic and wring easily in block build-ups. Bakelite finger grips are provided on 2, 3 and 4-in. blocks as body heat shields. Made by **Webber Gage Co.**, 12922 Triskett Rd., Cleveland 11, O.

▲ For more details circle NED-2626 on enclosed inquiry slip ▲

PLIER-CUTTER-WRENCH TOOL
in 4½, 5½, 6½ and 8-in. sizes

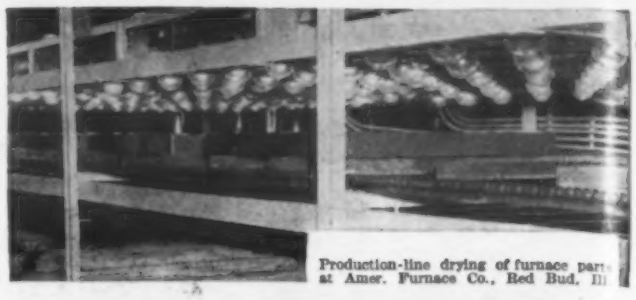
Plier, cutter and wrench action are embodied into this one No. 102 Mechanical Hand tool. Checkered parallel jaws with longitudinal V slot firmly grips electrical or spring wires which can be run through open throat from either end. Jaws also act as wrench for adjusting machinery, tightening nuts, or picking and holding parts. Compound cam-action leverage makes possible cutting of heavy wires and pins. Tool is made of heat-treated nickel molybdenum alloy steel, nickel plated, in 4½, 5½, 6½ and 8-in. sizes. The 6½-in. size can be had with or without self-opening spring handle for high-speed production work. Made by **Sargent & Co.**, 145 E. Water St., New Haven 9, Conn.

▲ For more details circle NED-2627 on enclosed inquiry slip ▲

WIDE RANGE MOTOR CONTROL
varies speeds from 100 to 10,000 rpm

With this 302-A speed and torque generator, which consists of special motor and control box operating on 115-v 60-cycle line, speed can be varied from 100 to 10,000 rpm with maximum output torque of 1.0 oz-in. Unit can be used in automatic control systems, light machine tools, industrial process control, coil winding equipment, servo directors, variable speed turntables and textile looms. Speed can be controlled remotely, by varying direct current voltage or a shaft position, and is read directly on front panel meter. With control, running torque measurements can be made on gear boxes and tachometers. Matching gear boxes are available for any reduction ratio. Made by **Industrial Control Co.**, Dept. ND, Straight Path Rd., Wyandanch, L. I., N. Y.

▲ For more details circle NED-2628 on enclosed inquiry slip ▲



Production-line drying of furnace parts at Amer. Furnace Co., Red Bud, Ill.

CUT DRYING TIME IN HALF with NALCO INFRA-RED LAMPS

Industry-proved Nalco Lamps are cutting hours from production-drying time for scores of big-name users. Long-lasting carbon filaments provide greater penetration . . . less glare . . . fewer burn-outs.

SAVE MONEY, SPACE TOO! Nalco Lamps keep parts moving faster—save hours and dollars . . . eliminate expensive storage space. Available in inside aluminumed or clear glass types. FREE Bulletin, "Drying Problems Made Easy," upon request.

PILOT LAMPS
Carbon filament—110-120v. Superior to tungsten on machines that vibrate. Variety of sizes.

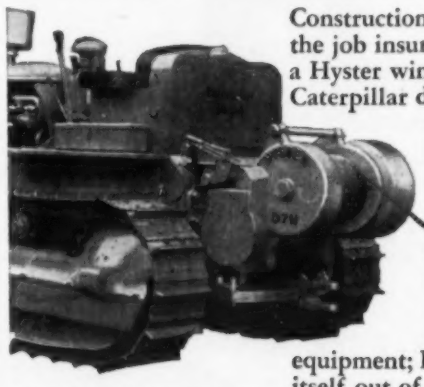
NALCO INFRA-RED DRITHERM

NORTH AMERICAN Electric Lamp Co.

1013 Tyler Street St. Louis, Mo.

▲ For more details circle NED-2629 on enclosed inquiry slip ▲

HYSTER® Winches have R-E-A-C-H and Pull Power for any construction job...



Hyster Tractor Winches are manufactured for use with Caterpillar D8, D7, D6, D4, D2 and DW-10 tractors. Included are Towing Winches, Worm Drive Winches, Hy-Speed Winches, Oil Well Servicing Winches, two and three drum Tractor Mounted Hoists.

Construction men all know the job insurance provided by a Hyster winch mounted on a Caterpillar diesel tractor. The winch MOVES heavy equipment; RESCUES mud-bogged equipment; INSURES against work stoppage or down-time on any project using equipment; PULLS the tractor itself out of mud or other situations that have immobilized the unit.

Hyster winches and other tractor tools are sold and serviced at more than 700 Caterpillar dealer stores around the world. Consult your dealer. Write for literature.

HYSTER COMPANY

2906 N. E. CLACKAMAS, PORTLAND 8, OREGON
1806 NORTH ADAMS STREET, PEORIA 1, ILLINOIS

▲ For more details circle NED-2630 on enclosed inquiry slip ▲

REALOCK FENCE

means what it says

Realock Fence provides real locked-in protection for your grounds and property. All fittings have bolts placed so that nuts are recessed only from the inside ...thereby insuring safety from intruders.

Realock Fence is heavily galvanized by a special process...gives weather-resistant, durable service year after year with little or no expense for maintenance. Expert erection service is conveniently available.

For additional information write our nearest sales office or consult your classified telephone directory.

EAST: Wickwire Spencer Steel Division, Buffalo, New York
WEST: The Colorado Fuel & Iron Corporation, Denver, Colorado
PACIFIC COAST: The California Wire Cloth Corporation, Oakland, California

REALOCK FENCE
THE COLORADO FUEL AND IRON CORPORATION

BRANCHES IN ALL KEY CITIES

▲ For more details circle NED-2631 on enclosed inquiry slip ▲

Try This for SIZE!

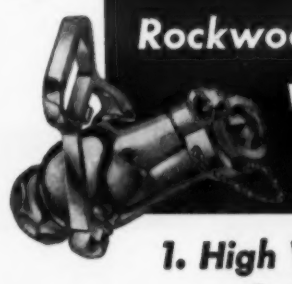
Federal Model 1000 Series Indicating Snap Gage shows dimensional variations clearly on the Dial—not just "go, no-go". It lets the man at the machine see how he's doing so he can prevent scrap BEFORE it happens. Model 1000 Gage feels like a conventional "go, no-go" gage, handles like a conventional gage, and is even easier to adjust for size. It will pay you to use Model 1000 in your production department. Five Gages cover O.D.'s from 0 to 6". Only $57.50 for any one Gage with .0005" graduations. Write for complete details. FEDERAL PRODUCTS CORP., 1711 Eddy Street, Providence 1, R. I.

FEDERAL
Largest manufacturer of indicating type gages . . . exclusively.

For more details circle NED-2632 on enclosed inquiry slip

3-Way FIRE PROTECTION

Rockwood Triple-Action WaterFOG Nozzle Discharges:



1. High Velocity WaterFOG
2. Straight Stream
3. Low Velocity WaterFOG

The Rockwood SG-48 WaterFOG Nozzle puts out fires in flammable liquids and ordinary combustibles faster and with less water. Protects operator from heat and fumes, is easier to handle — and operates efficiently with a water pressure of 50 p.s.i. at the nozzle. For chemical and industrial plants, oil refineries, public buildings, municipal fire departments, etc. Approved by Underwriters' Laboratories, Inc., and Factory Mutual Laboratories.

Bulletin C501 gives you complete information. Write for your copy.

ROCKWOOD SPRINKLER COMPANY
Engineers Water . . . to cut fire losses
44 Harlow Street, Worcester 5, Mass.

For more details circle NED-2633 on enclosed inquiry slip

NEW Bellows HAN-D-AIR CLAMP

Only **$6.00 ea.** **$66. per doz.**

- SAVES TIME in jig and fixture operations
- SAVES TIME in parts positioning
- SAVES TIME in parts ejection

Overall Size 4" x 1½" Square

The new Bellows HAN-D-AIR CLAMP is a spring return, single acting miniature air cylinder. 1⅛" bore develops 100 lbs. of pressure at 100 lbs. of air. (Power factor 1 to 1). 1" stroke. Threaded 5/16" diameter piston rod. Universal mounting: can be mounted horizontally, vertically, side, front flange, rear flange or front pivot. Overall size 4" long by 1½" square. 1/16" heavy wall brass cylinder; ⅝" heads; oil resistant "U" cup; tension balanced spring.

ORDER TODAY — Dept. NED 1152 1249

The Bellows Co.
AKRON 9, OHIO

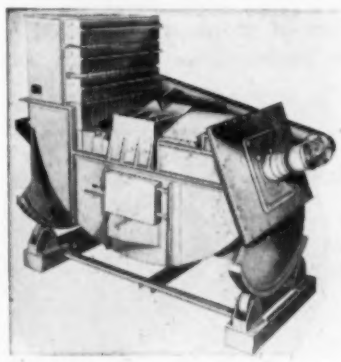
For more details circle NED-2634 on enclosed inquiry slip

SUBMINIATURE RECTIFIERS for military and commercial uses

Consisting of matched ¼-in. diameter round selenium rectifier cells encased in Bakelite, glass or metal housings, Minisel line of subminiature rectifiers features variety of constructions for military and commercial applications, including arrangements for hermetic sealing and fungus-proofing. Units can be built in all common and in any special electrical configuration, including standard instrument and spark suppressor types. Made by **Electronic Devices, Inc.,** Dept. NED, 429 Twelfth St., Brooklyn 15, N. Y.

For more details circle NED-2635 on enclosed inquiry slip

REVERBERATORY FURNACE melts ferrous and nonferrous metals in a continuous cycle



Continuous - charge, continuous-pour operation of Eclipse non-crucible direct-fired reverberatory furnace for melting ferrous and nonferrous metals makes possible castings production with no time lost between pouring and recharging. A melt of from 1200 to 1500 lb of steel scrap can be tapped within 30 minutes, depending upon size of scrap gates and risers. Fuel consumption averages 55 to 60 gph, while design of combustion chamber achieves near-perfect combustion.

Hopper in which the metal is charged has a restricted opening at the bottom to prevent cold metal from contacting the molten metal. Rapid melting lessens the degree of gas absorption. Furnace is fired by gas or oil and is offered in standard bath capacities from 300 to 4400 lb. It can be built to specifications. Made by **Eclipse Fuel Engineering Co.,** 1002 Buchanan St., Rockford, Ill.

For more details circle NED-2636 on enclosed inquiry slip

DO YOU KNOW? Large scale production of precision potentiometers and servo components, engineered to exact requirements of specific applications, is function of this company which has just entered into licensing agreement with Technology Instrument Corp. Standard types of units are also being produced. For full data, write Servotrol Co., 114 W. Illinois St., Chicago 10, Ill.

For more details circle NED-2637 on enclosed inquiry slip

HOW TO PICK THE RIGHT PUMP FOR YOUR PURPOSE

Tuthill now makes it easy for you to select the pump best-suited to the service you require. In one simple, letterhead-size table, the Tuthill Pump Guide gives you the details you need—types of service, pump models for each, capacities, pressures, speeds, packing, mountings, and exclusive features. Saves time, work and trouble.

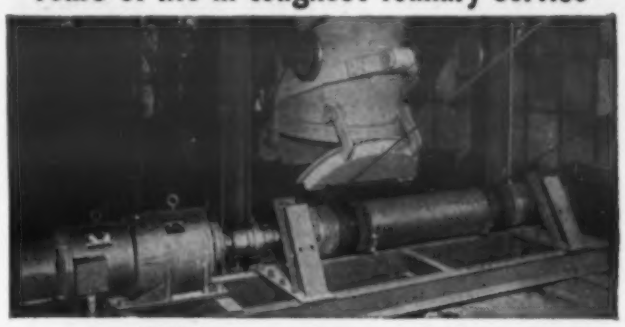
Write for this **PUMP GUIDE** *today!*

TUTHILL 25th Anniversary

TUTHILL PUMP COMPANY
939 East 95th Street, Chicago 19, Illinois

For more details circle NED-2638 on enclosed inquiry slip

"Years of life in toughest foundry service"



. . . say Whiting engineers of Star-Kimble Gear-Brakemotors

This Whiting Skip Charger must stop heavy foundry loads *accurately* and hold them *positively*. Equipment is subjected to intense heat and dirt.

For service like that, Whiting powers its equipment with Star-Kimble Gear-Brakemotors, which have proved their ability to give years of service with little attention. These Gear-Brakemotors are compact, integral assemblies of motor, brake and speed reducer.

For information on the Brakemotor line, including Gear-Brakemotors, write for Bulletin B-501-A.

STAR-KIMBLE
MOTOR DIVISION
MIEHLE PRINTING PRESS AND MFG. CO.
214 Bloomfield Avenue Bloomfield, New Jersey

For more details circle NED-2639 on enclosed inquiry slip

FAGEOL heat machines give you heat instantly where you need it!

MODEL PW-189
189,000 B.t.u. per hr. (no chimney or flue)
Also available in 168,000 B.t.u. capacity for vented and unvented use.

PORTABLE . . . also cools men at work in summer.

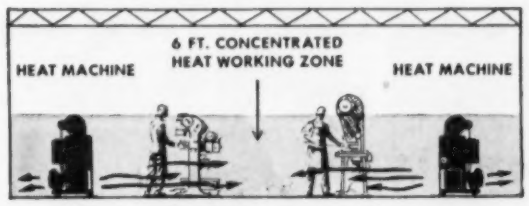
HEAT MEN AT WORK—NOT EMPTY SPACES

Just snap the switch!

Your Fageol Heat Machine will instantly pour out heat for keeping men warm at work, thawing materials and equipment, drying, treating, curing, heating buildings. *It solves loading dock heating problems!*

By blowing warm air out along the floor or ground, each Heat Machine creates a 6 ft. high heat blanket over areas from 1,600 to 3,000 sq. ft. Unlike ordinary space heaters, they heat where men work. Consequently, operating on No. 1 or 2 fuel oil, kerosene, or diesel oil, they save greatly on fuel costs. A-6055

Write today for Bulletin L-5391



HEAT THE WORK ZONE

FAGEOL HEAT MACHINE CO.
5725 Mt. Elliott Ave. • Detroit 11, Mich.

For more details circle NED-2640 on enclosed inquiry slip

7 important advantages with MOTCH & MERRYWEATHER

HEAVY DUTY ANTI-WELD SOLUBLE OIL

Triple-Chip deters welding and pick-up; prevents rust. Consequently, tool life is lengthened and accurate, milled-finish work is produced. Tool maintenance and replacement is reduced. Furthermore, Triple-Chip is non-injurious to the skin, is smokeless and odorless.

Get a supply today from your local dealer.

THE MOTCH & MERRYWEATHER MACHINERY CO.
PENTON BUILDING CLEVELAND 13, OHIO
COMMAND OUR UNPARALLELED EXPERIENCE IN CIRCULAR SAWING . . .

▲ For more details circle NED-2641 on enclosed inquiry slip ▲

How to get the right drill for YOUR job!

The *right drill for the job* saves you time, money—and gives you better work! Why settle for a drill that's "almost" right?

PET Superduty drills are made in 54 distinct models, each with speeds and rated power that industrial users have asked for. Result? You can choose the drill that's *exactly* right for your job!

To top it off, every PET Superduty drill is built for rugged service. Dynamically balanced armatures stop vibration. Forced ventilation keeps them cool. Precision-cut gears run smooth, stay quiet. Big reserve power makes motors last longer.

Free Catalog can save money—for YOU!

If you want details on the best in electric drills—*at prices that will come as a pleasant surprise*—get the illustrated PET Superduty catalog! For your free copy, and name of your nearest PET distributor, write today to Dept ND-112.

PET POWER TOOLS

PORTABLE ELECTRIC TOOLS, INC.
320 West 83rd Street, Chicago 20, Illinois
In Canada: Portable Electric Tools, Ltd., Toronto, Ontario

▲ For more details circle NED-2642 on enclosed inquiry slip ▲

BROWNHOIST BETTER
● BUY DIRECT FACTORY
● ROPE REEVE, LINK TYPE
● WRITE FOR CATALOG

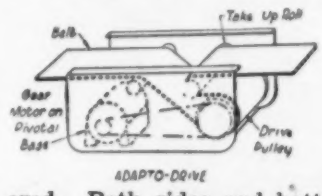
BUILDS BUCKETS FROM FOR LESS POWER WHEEL

INDUSTRIAL BROWNHOIST CORP.
BAY CITY, MICHIGAN 156

▲ For more details circle NED-2643 on enclosed inquiry slip ▲

CONVEYOR BELT DRIVE UNIT for speeds of 30, 60 or 80 fpm

Motor, drive pulley and takeup pulley are built into one compact unit in line of Adapto-Drives for driving belt or live roller conveyors in widths of 14, 18, 24 and 30 in. with package speed of 30, 60 or 80 fpm. Motors range from ½ to 2 hp and either horizontal or inclined conveyors up to 25 degrees can be powered. Both sides and bottom are enclosed by sheet steel housing. Drive pulley, mounted on antifriction bearings which can be lubricated from outside housing, is connected to gear motor through roller chain. Screws on takeup pulley are accessible from open end of housing. Length of unit is 3 ft 6 in. and depth ranges from 16 to 18 in. Made by **Logan Co.**, 216 Cabel St., Louisville 6, Ky.



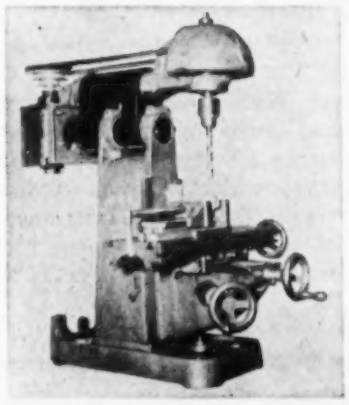
▲ For more details circle NED-2644 on enclosed inquiry slip ▲

MACHINE PERFORMANCE RECORDER has data write-in feature

Both potential and actual production, machine speed and number and duration of stops are indicated by this industrial machine performance recorder. Dry stylus mechanism, driven by flexible cable connected to machine, oscillates over clock-driven chart and records each piece produced. When machine stops, or production ceases, stylus stops oscillating. Write-in feature allows operator to record cause of down time. Supervision of machine operations is constant and automatic. Instrument can be mounted conveniently on or near the machine. Made by **Knopf Instrument Co.**, 261 Culver Ave., Jersey City 5, N. J.

▲ For more details circle NED-2645 on enclosed inquiry slip ▲

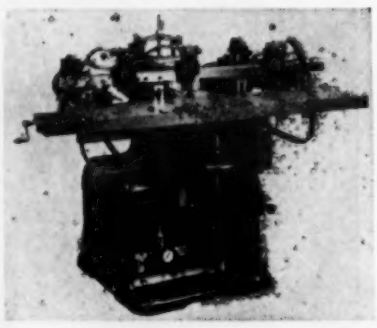
MILLING MACHINE ATTACHMENT raises head for larger work loads



Efficiency of Benchmaster machines for milling, drilling and machining is increased by addition of the Price Adapter which raises the milling head to increase the height between table and spindle 50 per cent. This allows use of larger drills, a standard dividing head or a turntable when necessary, as well as making possible larger work loads. Attachment also permits milling and drilling at all angles up to 180 degrees. Installation takes less than 1 hr and kit contains all parts and instructions. Made by **D. W. Price Corp.**, Dept. N, 11161 W. Pico Blvd., Los Angeles 64, Calif.

▲ For more details circle NED-2646 on enclosed inquiry slip ▲

BORING MACHINE with extra heavy air clamps



Three extra-heavy quick-acting air clamps incorporated in this No. 71-DX horizontal boring machine are designed to eliminate play. They are controlled by an adjustable cam mounted inside the base and synchronized with the horizontal travel of the bits in the five horizontal spindles. The clamps can be adjusted in any position along the length of the mounting bar. Use of this type of clamp speeds production. Machines now equipped with mechanical clamps can be changed over to the air clamps. Made by **Oliver Machinery Co.**, 1033 Coldbrook St. N.E., Grand Rapids 2, Mich.

▲ For more details circle NED-2647 on enclosed inquiry slip ▲

Hose by NYB&P

types and constructions for any industrial need

Jubilee General Purpose—for general utility in pneumatic tool and air drill service. Rayon-braided type with an oil-resistant neoprene tube which will handle satisfactorily almost any fluid.

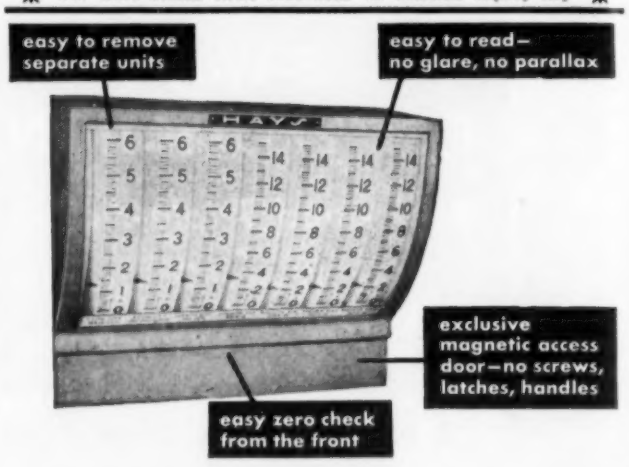
NYB&P makes every type of industrial hose—from steam and hot water service to heavy-duty suction and discharge hose.

Ask your NYB&P Distributor for free booklets which describe all types of industrial hose—or write direct to address below.

NEW YORK BELTING & PACKING CO. NYB&P Since 1846

NEW YORK BELTING & PACKING COMPANY
1 Market Street, Passaic, New Jersey

▲ For more details circle NED-2648 on enclosed inquiry slip ▲



a new draft gage!

the HAYS Verticscale *You* designed this draft gage! You asked for these features! • *Accessibility* from the front makes possible easy "one man" method of quickly checking zero. (The fast 3-way cock with test fitting is *standard* on the Hays Verticscale). • *Simple maintenance*—individual units can be quickly removed for inspection or adjustment. Removal does not affect other units in the case, does not disturb calibration of unit being re-installed. • *No parallax*—design eliminates reflections regardless of viewing angle. • *No glare*—internal fluorescent lighting is standard. • You get all these values *plus* functional styling in the Hays Verticscale draft gage! • *Write today for full information on the Hays Verticscale Bulletin 52-1060-210.*

THE **HAYS** CORPORATION
MICHIGAN CITY 15, INDIANA

▲ For more details circle NED-2649 on enclosed inquiry slip ▲

HERE'S ECONOMICAL Wound Rotor Motor Control

THIS COMBINATION of primary and secondary control for your wound-rotor motors will give you dependable, economical control . . . smooth acceleration and positive speed regulation.

PRIMARY CONTROL. Type 371 Wall Mounted Starters are designed for space saving, low original cost installation. Operating costs are kept down by rolling-wiping contact action, low inertia moving parts, and a completely oil-immersed mechanism that is sealed from the atmosphere.

SECONDARY CONTROL. Allis-Chalmers Type 9410 starting duty drum switches have four balanced control points . . . speed regulating switches have five. Both have radial and thrust ball bearings on each end of the shaft for easier, smoother operation.

Bulletin 14B7274 describes Type 371 starters for 2300-volt motors of 350 hp or less. Call your A-C representative or write Allis-Chalmers, Milwaukee 1, Wis. for this bulletin and more information on Type 9410 drum switches.

ALLIS-CHALMERS A-3531

▲ For more details circle NED-2650 on enclosed inquiry slip ▲

AIR-POWERED

CONTROLLED VOLUME PUMPS

The Milton Roy Air-Powered Controlled Volume Pump, termed the "aiROYmetric," is of the reciprocating, positive displacement type. It is designed for precision operation.

CAPACITIES: 2.5 cc per full stroke to 405 gph at pressures to 25,000 psi.

APPLICATIONS: Milton Roy Air-Powered Controlled Volume Pumps are widely used in such representative applications as *blending, bottle filling,* and *automatic feed systems, in hydrostatic testing, treatment of boiler water, the sampling of industrial wastes.* They handle practically any liquid, including solids in suspension, high-viscosity materials, tars, sludges, and slurries.

For additional information, write for Bulletin No. 351.

MILTON ROY COMPANY
1304 E. MERMAID LANE • PHILADELPHIA 18, PA.

▲ For more details circle NED-2651 on enclosed inquiry slip ▲

MOLTEN METAL POURING UNIT maintains melt's temperature as well as alloy composition

Designed to discharge accurate amounts of molten metal, particularly aluminum, directly into cold chamber of most die casting machines, the Ajaxomatic automatic pouring unit normally produces castings from ½ to 5 lb. Castings up to 20 lb can be poured with slight modifications. Molten metal is taken from below surface of melt, eliminating chance of collecting surface oxides or scum. Temperature and alloy composition of melt are maintained by Ajax-Tama-Wyatt inductor. Unit can be used for zinc alloys as well.

Practically inert refractory materials and electric heating are used throughout. One of two self-contained electric control sections maintains metal temperature. The other regulates automatic pouring by weight of casting desired. These controls can be linked to automatic controls for constant time interval between pouring and injection. Made by **Ajax Engineering Corp.**, 9 Lalor St., Trenton, N. J.

▲ For more details circle NED-2653 on enclosed inquiry slip ▲

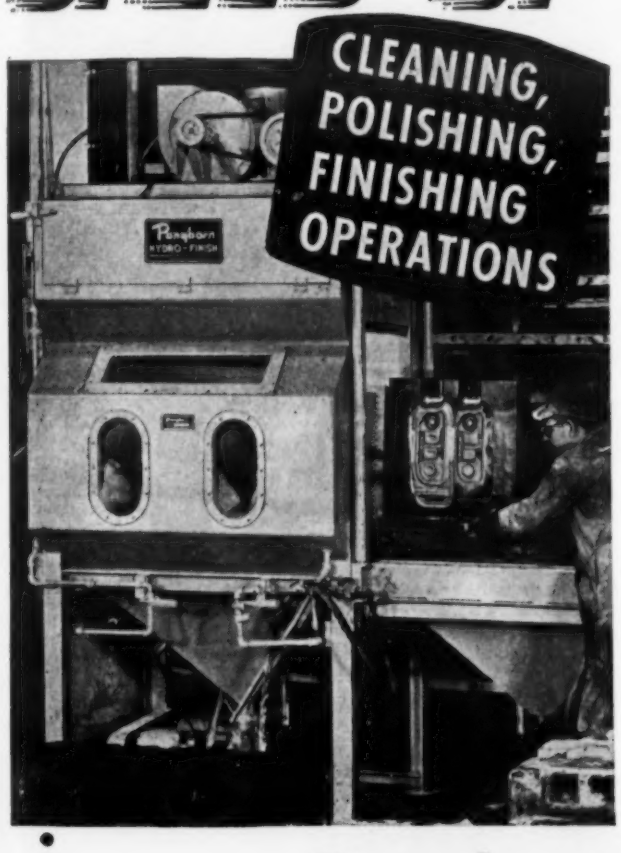
INDUSTRIAL FLOOR CUTTER grooves, scores or cuts 6½ in. deep with water cooled diamond blade

Straight or reasonably curved cuts up to 6½ in. deep and without spalled or broken edges can be made in concrete and other aggregate industrial flooring with the Tri-Line concrete cutter which uses double-bonded, water-cooled, diamond cutting blade. Cutter also scores or grooves ramps and other surfaces for safety or ornamental purposes. It is powered by 13-hp two-cylinder Wisconsin engine.

Double-ended arbor allows cutting on either side of machine in normally inaccessible places, and hydraulic control provides effortless depth-of-cut adjustment. Three-wheel undercarriage of highly maneuverable 700-lb machine prevents tilting and blade binding. Cutter can be used with furnished 30-gal water tank, or can be connected to hydrant. Vital engine parts are protected from blade water spray. Made by **Tri-Line Co.**, 967 Carroll St., Racine, Wis.

▲ For more details circle NED-2654 on enclosed inquiry slip ▲

SPEED UP



Pangborn Hydro-Finish is versatile! Use it to speed up cleaning, polishing and finishing of molds and dies as well as production line work.

Hydro-Finish saves you time, labor and money. Scale and discoloration are removed in *minutes* instead of hours. Cleaned surfaces are virtually free of directional grinding lines. Costly hand work is greatly reduced. No danger of excessive metal removal because tolerances are held to .0001". Fine mesh abrasives suspended in water do a precision job.

Find out how Pangborn Hydro-Finish improves product quality, increases tool and die life! For full details, write today for Bulletin 1400A to: PANGBORN CORPORATION, 2400 Pangborn Blvd., Hagerstown, Md.

Look to Pangborn for the latest developments in Blast Cleaning and Dust Control equipment.

Pangborn

BLAST CLEANS CHEAPER with the right equipment for every job

▲ For more details circle NED-2652 on enclosed inquiry slip ▲

TELEFLEX MECHANICAL REMOTE CONTROLS

CONTROLS THAT LEAD THE FIELD IN

PERFORMANCE—Maximum efficiency is provided by the unique, screw-type Teleflex Cable. Minimum backlash is maintained by the high cable strength and the close fit between the Cable and the rigid Conduit.

SAFETY—Controls are designed with high margins of safety. End fittings feature positive locking to the Cable. Controls resist fire damage.

VERSATILITY—Controls are routed around obstructions by forming the rigid Conduit as required.

Teleflex controls are assembled on the production line from standard component parts. Straight line, angular or rotary control motions are made possible by the large variety of specialized end fittings.

Engineering service is available.

For further information write for catalog 300C.

TELEFLEX INCORPORATED
125 South Main St.
North Wales, Penna.

▲ For more details circle NED-2655 on enclosed inquiry slip ▲

Clipper BELT LACING EQUIPMENT

For Belts and Tapes 1/16" to 3/8" thick

Industry's Most DEPENDABLE Belt Joints

Proven by use and comparison, Clipper Belt Hooks assure longest service. Made from uniformly high quality, fatigue resisting wire produced exclusively to meet our rigid specifications. For easy application and maximum uninterrupted service, use GENUINE Clipper Belt Lacers. There is a type and size for your needs.

No. 9 Portable Lacer

Ask your Mill Supply Jobber for CLIPPER Products.

CLIPPER BELT LACER CO.
Grand Rapids 2, Michigan

▲ For more details circle NED-2656 on enclosed inquiry slip ▲

BARRETT "5-HUNDRED" ELEVATOR

An inexpensive, all-purpose portable elevator for loads up to 500 lbs., 5 ft. or 7 ft. lift; 24-inch square platform handles boxes, crates, drums, dies, etc. For loading dock, racking and storage operations; as supporting table, high level repair platform and many other time- and money-saving uses. Easily raised and lowered by hand, loads safely held at any height. Other low priced standard models offer capacities of 1000 and 2000 lbs. Write for Bulletin 5131.

BARRETT-CRAVENS COMPANY
4623 S. Western Blvd., Chicago 9, Ill.

Representatives in All Principal Cities.

Canadian Licensee:
S. A. Armstrong Ltd., Toronto

BARRETT
One man does more than 3 or 4...with a Barrett

▲ For more details circle NED-2657 on enclosed inquiry slip ▲

Another **FIRST by ARO**

Instant PUSH-BUTTON Reverse

A REVOLUTIONARY SCREW DRIVER AND NUT SETTER

ARO's new push-button valve means *instant reverse action*... no need to remove from work... no stopping to turn levers... no wasted time.

Adjustable clutch (available with positive clutch) Length 7-11/16"... outside diameter 1-5/16"... weight 1.4 lb.

This outstanding tool must be seen in action to appreciate its amazing action. Write for literature.

The Aro Equipment Corporation, Bryan, Ohio.
Aro Equipment of Canada, Ltd., Toronto

ARO AIR TOOLS Also... LUBRICATING EQUIPMENT...HYDRAULIC EQUIPMENT...AIRCRAFT PRODUCTS... GREASE FITTINGS

▲ For more details circle NED-2658 on enclosed inquiry slip ▲

QUALITY AT A MASS PRODUCTION PRICE

Type H

If your processing is done at steam pressures 0-25 psi, you can use this superior SARCO RADIATOR TRAP at a very substantial saving in first cost.

Many thousands are used every year for space heating in all types of buildings. They are produced by the latest automatic machinery, resulting in highest quality at a very low price.

SARCO thermostatic steam traps are unequalled for the rapid removal of air and condensate from steam coils or jackets, and their supply lines.

0-25 PSI—Type H, Bulletin 155
0-65 PSI—Type S-65 } Bulletin
0-100 PSI—Type N-100 } 195

SARCO COMPANY, INC.
EMPIRE STATE BUILDING, NEW YORK 1, N. Y.
Represented in Principal Cities
SARCO CANADA LTD., TORONTO 5, ONTARIO

510

For more details circle NED-2660 on enclosed inquiry slip

where ELSE can you use PRINT-AD STRING
Reg. U. S. Pat. Off.

the "TIE that TALKS"?

Tie up your products with Print-Ad String, and wherever they go they tell people your name or slogan, they give directions, they measure footage, they provide grade markings—they tell whatever you want told . . and tell it in a novel, colorful way.

Here's a tremendously strong COTTON tie—in thicknesses down to .003, widths down to ⅛", in any color or combination of colors you want—a tie that won't mar or dent the edges of articles tied in it—won't slip in the knot—won't stretch—and adds a smart touch to your package.

Mighty useful for manufacturing short-cuts, too. Be informed! Mail coupon now for FREE booklet full of valuable ideas!

BETTER TYING

Holds parts firmly for assembly, cutting, drilling . . Holds parts in finished assemblies . . Measures running footage . . Gives directions, grade marks, identifications.

BIG HELP IN THE PLANT

Good-looking all-cotton ties! . . Flat, won't mar or dent edges of boxes or merchandise . . Won't slip in the knot . . Non-stretch, great strength . . Also used as rip-cord opener, from candy bars to survival kits . . Ties anything!

MAIL FOR FREE IDEA BOOK!

Dept. C -Chicago Printed String Co.
2300 Logan Blvd., Chicago 47, Ill.

GENTLEMEN: Without cost or obligation send me your FREE Idea Book.

My Name _____
Title _____
Company _____
Address _____
City _____ State _____

For more details circle NED-2661 on enclosed inquiry slip

LABORATORY PLANNING KIT
scaled lab layouts can be made

Scaled cutouts, representing 21 ready-made, pre-engineered steel furniture units are contained in laboratory kit which facilitates layout and planning without blueprints. Cutouts can be manipulated on kit's graph paper scaled ½-in. to the foot. Heights of assemblies can be allowed for through use of booklet which gives front and side-view dimensional drawings. Lab utilities, such as gas, electricity, water and cup sinks, can be marked on plan. Kit also contains complete catalog of unitized furniture and photos of suggested lab installations. Packaged kit is available free from **Fisher Scientific Co.**, 715 Forbes St., Pittsburgh 19, Pa.

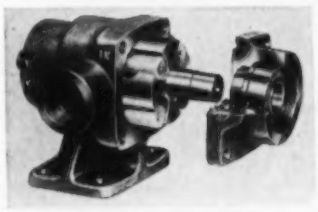
For more details circle NED-2662 on enclosed inquiry slip

LANE MARKING TAPE APPLICATOR
applies durable plastic floor tape

Light in weight and easy to use, Scotch brand lane marking tape applicator facilitates marking trucking lanes, aisles, storage areas and safety zones on floors. With this tool, one man applies up to 4-in. wide self-adhering marking tape in single operation. Tape is fed off the roll-holding attachment, under the pressure wheel and onto floor in a continuous strip. Tape adheres to any dry, clean wood or masonry surface and lies smoothly even over crevices and depressions in older floors. Made by **Minnesota Mining & Mfg. Co.**, Dept. NED, 900 Fauquier St., St. Paul 6, Minn.

For more details circle NED-2663 on enclosed inquiry slip

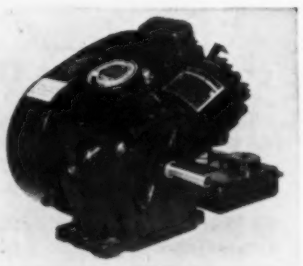
SELF-PRIMING PUMP
withstands heavy radial loads



Suited for use where lime, talc and similar abrasive solutions are in use, 4000 series industrial pump is engineered to withstand continuous heavy radial loads through use of sealed lubricated ball bearings. Incorporating scoop rotor and roller type vanes, it has a stainless steel shaft press-fitted into the inner race of the bearings to restrict lateral movement of the rotor. Pump is available in cast iron or Ni-Resist and features Nylon or Hy-Car rubber rollers, both abrasive resistant and lubricated by water. It is self-priming, weighs 4½ lb, has ¾-in. ports and delivers about 7½ gpm at 100 lb pressure and 1750 rpm. Made by **Hypro Engineering, Inc.**, Dept. NED, 404 N. Washington Ave., Minneapolis 1, Minn.

For more details circle NED-2664 on enclosed inquiry slip

INDUSTRIAL ENGINE
features new ignition system



Air-cooled industrial engines are equipped with a new ignition system which reduces ignition servicing time and prolongs life of spark plugs and points. Contax system does away with need for removing shroud and flywheel when points or condenser require service. They are housed in an external unit on top of the crankcase and are driven by a cam on the camshaft. Life is increased as breaker points operate at one-half engine speed. AU series engines are offered with this system used in conjunction with a fly-weight type mechanical governor, with the centrifugal unit housed under the same cap as the condenser and points. Photo shows model AC-5 engine equipped with the Contax system. Made by **Continental Motors Corp.**, Air-Cooled Engine Div., 12802 Kercheval Ave., Detroit 14, Mich.

For more details circle NED-2665 on enclosed inquiry slip

Increase PRODUCTION

REDUCE MAINTENANCE with Westsorb

VIBRATION-ABSORBING MACHINE MOUNTS

Elimination of vibration in power-driven machines invariably increases their production.

Westsorb Felt Machine Mountings are easily installed, engineered to every job, low in price and are serving on hundreds of different manufacturing jobs.

Westsorb mountings will not break down under extended impact loads. They resist oil, grease, acid, age—do not ravel or fray. Three degrees of hardness and thicknesses meet every requirement. Adhesive coating both sides makes bolts and floor holes unnecessary.

Westsorb is the ideal mounting for stepping up the wheels of industry.

Western Felt engineers in principal cities are anxious to cooperate in solving your vibration problems.

Write Today FOR 18 PAGE BOOKLET

Contains data on tests of Westsorb efficiency in typical plants, illustrations and exclusive engineering data on vibration.

WESTERN Felt WORKS
4035-4117 Ogden Ave.
Chicago 23, Illinois
Branches in all Principal Cities
MANUFACTURERS AND CUTTERS OF WOOL FELTS

For more details circle NED-2666 on enclosed inquiry slip

"YANKEE" VISES

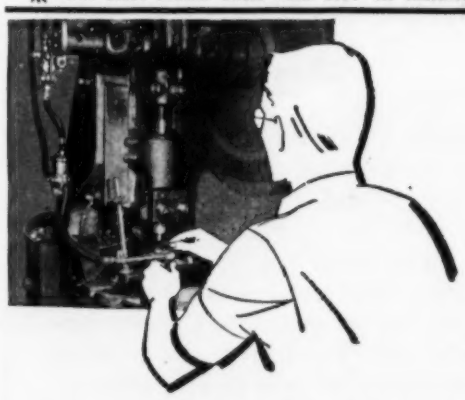
for accurate, work holding
START-TO-FINISH

Every operation is lined up square and true in a "Yankee" Vise. Carefully machined . . . top, bottom, sides and front end to give accurate alignment in any position. Easily made into jig. V-grooved hardened steel block furnished with each "Yankee" Vise. Four sizes . . . 1½", 2", 2¾" and 4" jaw widths. Write for "Yankee" Tool Book.

YANKEE TOOLS NOW PART OF STANLEY
THE TOOL BOX OF THE WORLD

NORTH BROS. MFG. CO.
Philadelphia 33, Pa.

For more details circle NED-2667 on enclosed inquiry slip



Step Up Production and Safety, Too with Schrader Air Ejection

You're losing production when operators must manually unload work that could be ejected by air. Extra work takes time, and adds hazards to the job.

A Schrader Air Ejection Set will give your presses — and operators — a new lease on life. Fully automatic, these sets deliver enough air to eject the part, but no more. They are actuated by cams or trippers, and are delivered to you ready to install.

Various sets are available to handle any ejection problem.

Get full details on Schrader Ejection Sets. Write today for the Schrader catalog.

A. SCHRADER'S SON
Division of Scovill Manufacturing Company, Incorporated
459 Vanderbilt Ave., Dept. E-39, Brooklyn 17, N. Y.

For more details circle NED-2668 on enclosed inquiry slip

Users of Acadia Synthetic Rubber component parts in hundreds of industries have found them unsurpassed. No matter what function synthetic rubber must perform, depend on Acadia parts. They best meet exacting specifications and operating conditions such as mositure, oil, heat, wear and age resistance. Molded, extruded, die-cut to close limits —compounded to meet specific conditions. Acadia engineers will gladly cooperate.

- Seals
- Gaskets
- Washers
- Cups
- Channel
- Strip
- "O" Rings
- Sheet
- Tubing
- Roll Goods
- Cut Parts
- Lathe Cut Washers

Sheet and Roll Felt Manufactured for Special Purposes and To Meet All S.A.E. and Military Specifications.

ACADIA Synthetic PRODUCTS

Processors of Synthetic Rubber and Plastics • Sheets • Extrusions Molded Parts

DIVISION WESTERN FELT WORKS
4035-4117 OGDEN AVENUE • CHICAGO 23, ILLINOIS

For more details circle **NED-2669** on enclosed inquiry slip

FOR MATERIAL HANDLING—
more and more—the swing is to wide-base pneumatic tires

GENERAL
INDUSTRIAL PNEUMATIC TIRES

More Designers are specifying wide-base General Pneumatics. They know Generals add these extra selling points to handling equipment.

SAVE TIME · MONEY · LABOR

- *MORE LOAD CAPACITY AT LOW OR HIGH SPEEDS*
- *CUSHION EQUIPMENT AND LOADS REDUCING BREAKAGE AND SPILLAGE*
- *SAVE HIGH COST FLOORS AND FLOOR SURFACES*
- *SLOW, EVEN WEAR FOR LONG SERVICE*
- *HIGH FLOTATION FOR EASIER ROLLING OVER SOFT GROUND*
- *ROLLS EASIER, SMOOTHER OVER ALL SURFACES*

Available separately or in assemblies of Tires, Tubes and Wheels. Size O.D. 8" to 27"—200 to 4000 lbs. cap. for low or high speeds.

Rigid **CASTER FORKS** *Swivel*

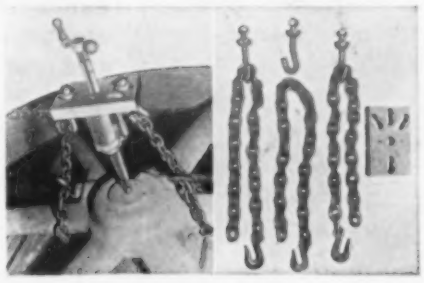
Wide-base caster forks engineered to carry heavier loads without adding dead weight to equipment. Available in identical pairs in a wide range of sizes.

SEND FOR CATALOG . . . DEPT. 4

THE GENERAL TIRE & RUBBER CO. AKRON, O.

For more details circle **NED-2670** on enclosed inquiry slip

CHAIN TYPE PULLER
for wheels, pulleys and gears



Developed for use with 17½-ton hydraulic ram, this universal chain puller facilitates removal of wheels, pulleys, flywheels and gears and other tough pulling jobs encountered in industrial maintenance. Puller serves as two or three way unit and includes three 3-ft 3720-lb ⅜-in. chains with grab hooks on one end. Self-centering hooks with a screw adjustment permit straight, even pull. Made by **Owatonna Tool Co.**, 436 Cedar St., Owatonna, Minn.

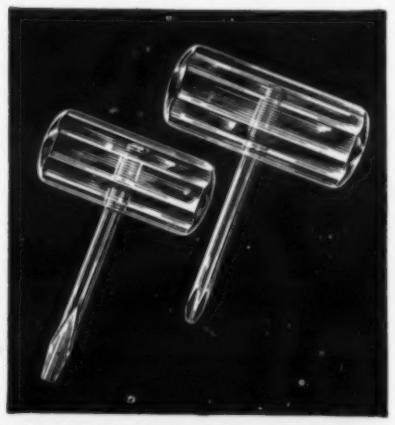
For more details circle **NED-2671** on enclosed inquiry slip

SAFETY CAP
one size fits all heads

Made of plastic impregnated Fiberglas, the Hard Boiled Cap meets or exceeds all requirements for radiation, insulation, strength, inflammability, water absorption, aging and dielectric strength. Although it has a low crown, air space between hammock and crown is ¼-in. in excess of 1¼ in. required by safety codes. Adjustable headband allows one cap size to fit head sizes from 6⅝ to 7⅝. Brim is shaped to form a raintrough and crown is grooved to hold a lamp wire in place. Distributed by **Safety First Supply Co.**, 423 Magee St., Pittsburgh 19, Pa.

For more details circle **NED-2672** on enclosed inquiry slip

SCREWDRIVERS
loosen tight or frozen screws



Feature of these Multigrip screwdrivers is the Fist-Fit handle which facilitates loosening tight or frozen screws. Blade only 2½ in. long permits tool's use in close quarters. Screwdrivers are available in two sizes for Phillips screws and two sizes for slot screws. Made by **Bingham-Herbrand Corp.**, Herbrand Div., Fremont, O.

For more details circle **NED-2673** on enclosed inquiry slip

SAFETY EQUIPMENT FOR ALL INDUSTRIES

IPCO
SAFETY PARTS LIFTER

Speeds up the job on parts that are difficult to handle with the fingers. Practical for flat or curved surfaces, damp or oily parts. Instantly affixed or released at the option of the operator. Cup diameter 2½", length over all 15".

WRITE FOR BULLETIN NO. 51

IPCO *Safety Equipment for all Industries*

INDUSTRIAL PRODUCTS COMPANY

2807 N. FOURTH STREET • PHILADELPHIA 33, PA.

For more details circle **NED-2674** on enclosed inquiry slip

IT'S TIME TO ACT FAST!

Reach Anyone Instantly

Boost Output

Cut Costs

SAVE TIME WITH
ELECTRONIC
AMPLICALL
INTERCOMMUNICATION

Gear up *now* for bigger output and increased efficiency. AMPLICALL provides 2-second speech contact between all departments for fast relay of orders and information. Stops wasteful walking and waiting —keeps plant and office personnel on the job every working minute—takes the load off busy switchboards. AMPLICALL *gets more work done for every operations dollar spent*—pays for itself quickly. Get the full details *today*.

SEE YOUR CLASSIFIED PHONE BOOK under "Intercommunication" for your AMPLICALL specialist, or write us direct

Electroneering is our business

SOUND EQUIPMENT **Rauland** INTER-COMMUNICATION

RAULAND-BORG CORPORATION • 3523-D ADDISON ST., CHICAGO 18, ILL.

For more details circle **NED-2675** on enclosed inquiry slip

UNBRAKO
SOCKET SCREW KEYS

UNBRAKO Hex Keys were developed to utilize to the maximum the quality built into UNBRAKO Socket Screws. They are interchangeable for various types of screws and suitable for use with all standard makes of socket screws. UNBRAKO Key Fold No. 1 is a plastic case with seven keys for socket set screws from #8 to ½" diameter, socket cap screws from #4 to 5/16" diameter, flat head cap screws from #6 to 7/16" diameter, as well as a number of shoulder screws and pressure plugs. Write for descriptive literature. STANDARD PRESSED STEEL CO., Jenkintown 24, Penna.

UNBRAKO SOCKET SCREW DIVISION **sps** JENKINTOWN PENNSYLVANIA

For more details circle **NED-2676** on enclosed inquiry slip

Promet Bars Stand Up Where the Going is Tough!

PROMET THE Engineered BRONZE

CORED AND SOLID BRONZE BAR STOCK

Made from Promet No. 6, an outstanding leaded bearing bronze noted for its free machining properties. Unbelievably great resistance to heat and wear. Will not burn, seize, pound out.

PROMET'S HIGH SAFETY FACTOR IS YOUR INSURANCE AGAINST BEARING FAILURE!

Tougher, harder and stronger, it resists shock loads and withstands high compressive forces and will not cut, or stick to the shaft under ordinary operating conditions. There is no seizing, no scoring—just smooth, quiet operation. Will not powder under the most severe conditions of service. When lubrication fails temporarily, Promet carries on safely until proper lubrication can be restored, affording protection against production shutdowns.

PROMET FULLY MACHINED BARS SAVE YOU TIME, TOOLS AND MONEY!

Completely precision machined inside, outside and on the ends, yet sufficient stock remains for the finishing cut. Can be machined at speeds of more than 500 feet per minute—more than double those of phosphor bronzes. This complete machining insures you against subsurface defects sometimes found in rough cast bars. A considerable amount of metal has already been removed—metal which you would be purchasing if you used rough bars. Every bar is absolutely concentric.

Available round, hexagon and square, in 13-inch lengths, rough cast.

MONEY-BACK GUARANTEE of longer, superior service and lower maintenance cost.

FREE ADVISORY SERVICE
Our competent design and engineering staff will be glad to assist you in solving your special bearing problems. Send today for free literature.

THE AMERICAN CRUCIBLE PRODUCTS COMPANY
1327 Oberlin Avenue Lorain, Ohio
Please send free literature on Promet Cored and Solid Bronze Bar Stock.
NAME .....
FIRM .....
STREET .....
CITY & STATE .....

For more details circle **NED-2677** on enclosed inquiry slip

NO SEAT!

TO SCORE...WEAR... CLOG...AND LEAK

The Yarway Seatless Blow-Off Valves eliminate the commonest source of trouble and expense with ordinary blow-off valve operations.

The famous seatless principle first introduced nearly 40 years ago, has been constantly improved and adapted to meet modern service requirements.

There is a Yarway Blow-Off Valve for every pressure.

SEND FOR FREE BLOW-OFF VALVE BOOKLET. PLEASE STATE YOUR BOILER PRESSURES.

Cross section of Type "B" Seatless Angle Valve, Flanged.

YARNALL-WARING COMPANY
131 Mermaid Ave., Phila.18, Pa.

YARWAY BLOW-OFF VALVES

▲ For more details circle NED-2678 on enclosed inquiry slip ▲

NEW! STEEL-PRIDE LOCKERS

WITH EXCLUSIVE NEW JET-LOK CONSTRUCTION MAKE ALL OTHERS OLD-FASHIONED!

Exclusive Jet-Lok double-U construction cuts assembly time sharply, increases rigidity, virtually assures pilfer protection.

Vertical members simply slide in place, interlocking throughout their entire length. Number of bolts reduced by half.

Design of legs, *not bolts alone*, support weight. Extension brackets provide adjustable leveling on uneven floors.

ENGINEERED TO ASSEMBLE IN MINUTES — SAVES TIME — SAVES COSTLY MAN HOURS!

CUTS ASSEMBLY TIME APPROXIMATELY IN HALF

Component sections slide together swiftly, easily. Has only 32 bolts (about half the number found in conventional lockers). Complete assembly time—approximately one half the time required for other lockers.

Exclusive Jet-Lok U-type construction provides maximum strength along *entire length* of various components. Lockers will not twist or lose original shape. No "bellying" is possible when installed in sections. *Built to far outlast any other locker on the market today!*

PRACTICALLY PILFER-PROOF . . . Jet-Lok vertical joints at front, back and sides lock securely—permanently—*make pilfering practically impossible.* Fully meets Government regulations!

UNIQUE LEG CONSTRUCTION . . . Legs specially designed to support weight of locker. Adjustable leg extension brackets permit easy leveling on uneven floors.

ESPECIALLY VALUABLE AS TIME-LABOR SAVER WHEN SETTING UP MULTI-UNIT INSTALLATIONS!

steel-pride STEEL SERVICE MANUFACTURING CO., STEUBENVILLE, OHIO

ATTENTION PURCHASING AGENTS

Send this coupon today for all the facts about the new, revolutionary Steel-Pride Locker.

Please send me your free catalog describing STEEL-PRIDE Lockers.

NAME.....

COMPANY.....

ADDRESS.....

CITY.....ZONE.....STATE.....

▲ For more details circle NED-2679 on enclosed inquiry slip ▲

SHEET METAL BENDING BRAKE
18-gage sheets 24 in. long handled

Latest addition to Chicago line of hand-operated and power bending brakes for sheet metal and steel plate is this bench model BB-2 brake, capable of handling up to 18-gage sheets, 24 in. long. Bending edge is made up of easily adjusted fingers in graduated widths fitted to a bar. These can be used in any combination anywhere along bending edge for folding, box and pan work and variety of straight bending operations. Cam-action clamp adjusts for various material thicknesses. Steel plate bending leaf is hinged in needle bearings and is controlled angularly by adjustable stop. Made by **Dreis & Krump Mfg. Co.,** 7436 S. Loomis Blvd., Chicago 36, Ill.

▲ For more details circle NED-2680 on enclosed inquiry slip ▲

DUST-TIGHT LIGHT FIXTURE
designed for hazardous locations

Class II, Groups E, F and G hazardous locations in which metal dusts, carbon black, coal or coke dusts are present can be illuminated with these 300/500-w dust-tight lighting fixtures. Unit consists of cast aluminum canopy containing mogul lamp socket, inner auxiliary reflector and 18-in. diameter Alzak finished aluminum main reflector threaded into canopy. Fixture uses impact and heat-resistant tempered flat glass lens which is spun into reflector edge to make dust and vapor-tight joint. Made by **Crouse-Hinds Co.,** 1347 Wolf St., Syracuse 1, N. Y.

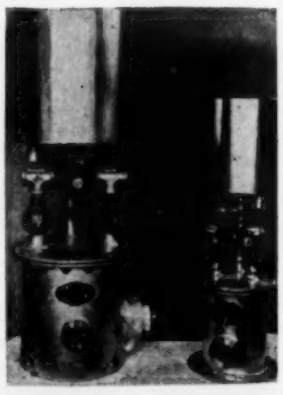
▲ For more details circle NED-2681 on enclosed inquiry slip ▲

METAL DISINTEGRATOR
removes broken taps and drills

Large cast iron T-slotted ground work-plate measuring 28½ x 39½ in. is feature of model 1-S metal disintegrator designed to remove broken taps and drills. Work-plate's size prevents large castings from hanging over side or end of machine and liquid coolant from running on the floor. It also simplifies setup. Air can also be used as cooling agent. Head's electric arc is made only on positive peak of sine wave for maximum disintegrating power. Gravity travel feed is 20 in. Head disintegrates all metals capable of conducting electricity without damage to workpiece or hole threads. Made by **Electro Arc Mfg. Co.,** P. O. Box 448, Ann Arbor, Mich.

▲ For more details circle NED-2682 on enclosed inquiry slip ▲

FLUX DISPENSER
gas and electric models offered

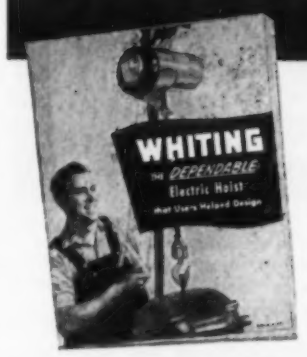


Dipping of the brazing rod into flux or brushing flux on the work is eliminated through use of model 68 Gasfluxer (right), one of two new models available. Cleaning operations after brazing are unnecessary. Designed for use with city gas, it has ½-in. orifices, as compared with the ¼-in. orifices in the model RE it replaces, and a three-valve by-pass to regulate the amount of flux delivered to the flame. Reserve tank has a 1-gal capacity. Other new unit, model SFH (left), has capacity for fluxing 100 to 120 cu ft of fuel gas per hour. It is equipped with a 5-gal tank and a 100-w heater which keeps flux at 100° F. Two thermostats control the temperature. Made by **Gasflux Co.,** P. O. Box 233, Mansfield, O.

▲ For more details circle NED-2683 on enclosed inquiry slip ▲

LIFT at Lowest Cost!

GET THIS BOOKLET FOR FACTS ON THE HOIST THAT WILL SERVE YOU BEST!



Read *why* the Whiting Electric Chain Hoist is the *lowest* in operating cost . . . *why* it is the *safest* hoist and the *easiest* to operate. And read about the *exclusive* Whiting Warranty Plan, too. All this information, plus data on models and capacities is contained in Bulletin H-112. Write for a free copy now!

WHITING CORPORATION 15660 Lathrop Ave. • Harvey, Illinois

WHITING ELECTRIC CHAIN HOIST

▲ For more details circle NED-2684 on enclosed inquiry slip ▲

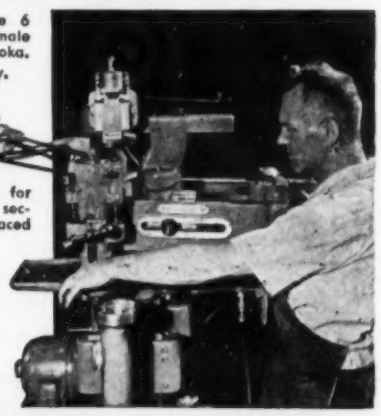
Pantography Aids Rearmament Program

THE pantograph is a versatile machine tool that does precision profiling, routing, die sinking, mold cutting, chamfering, grooving and engraving. It is credited with increasing production and securing better end results at lower cost.

Production by pantograph means high surface finish and repetitive accuracy — a dozen or thousands of identical pieces. The pantograph has high spindle speeds, up to 45,000 rpm, and uses enlarged masters that improve accuracy through a reduction ratio.

This machine is useful in machining ferrous or nonferrous metals and plastics, in regular or irregular shapes. It accommodates jobs ranging from dime size to areas of 10 by 20 feet . . . manual operation, or automatic.

JOB ILLUSTRATED: Profile 6 locking lugs for male and female sections of new 3.5" Bazooka.
MATERIAL: Aluminum alloy.
CUTTER: 5/32" dia. single flute, fast spiral H. S. steel running at 3,900 rpm, without coolant.
MASTER: 2 masters: one for male and one for female sections; 3 times oversize, traced manually.
HOLDING FIXTURE: Pneumatic-operated internal expanding type.
APPROX. TIME: 36 pieces per hour.
ALTERNATE METHODS: *None practical.*



This "Pantography" booklet tells the complete story of faster production by pantograph. Write for it and the Gorton General Catalog, 1655: The George Gorton Machine Co., 1911 Racine Street, Racine, Wisconsin.

▲ For more details circle NED-2685 on enclosed inquiry slip ▲

Over Half of America's Top Companies Use "Speed Sweep"

THE BRUSH WITH THE STEEL BACK

BECAUSE it sweeps faster and cleaner, and outlasts ordinary brushes 3 to 1, Speed Sweep has become the No. 1 sweeping tool of American Industry — used by over 50,000 firms. Whether you use a few or a lot of brushes, you'll find it pays to switch to Speed Sweep.

Write for styles, sizes and prices.

MILWAUKEE DUSTLESS BRUSH CO.
MILWAUKEE 3, WISCONSIN

▲ For more details circle NED-2686 on enclosed inquiry slip ▲

Can our product help you improve your product?

This is **INNER-SEAL.** It's extremely durable, extremely effective . . . with many features that eliminate sealing problems in the manufacturing of countless products.

Inner-Seal's bead is of *live sponge rubber* which compresses under pressure, then springs back into shape. Its flange is of *woven spring wire,* tough but flexible enough to fit snugly around corners. Its coating is of *waterproof neoprene* . . . designed for sub-zero or tropical temperatures, sunlight, humidity, grease, oil or abrasion. Available in various dimensions. Standard Inner-Seal in many colors . . . heavy-duty "dumb-bell" type in black . . . special types can be made to order.

Although Inner-Seal is most widely known in the refrigeration, railway, shipping and automotive fields, it's continually finding many new applications. Maybe *you* have one . . . maybe we can help!

FREE SAMPLES and complete information. *Write today.*

Bridgeport INNER-SEAL Live Rubber WEATHER STRIPPING

BRIDGEPORT FABRICS, INC., BRIDGEPORT 1, CONN.

▲ For more details circle NED-2687 on enclosed inquiry slip ▲

MAY-FRAN AUTOMATIC SCRAP HANDLING SYSTEMS...

Speed-up production

Increase machine tool production . . . eliminate manual lifting and hauling . . . reduce scrap handling time . . . with a **MAY-FRAN** engineered system. Hot, wet or highly abrasive chips, turnings and borings are continuously removed from operating production machines by CHIP-TOTE conveyors. Scrap is then discharged onto **MAY-FRAN** hinged-steel belting which transports it out of plant or to other disposal point.

MAY-FRAN systems are completely automatic and provide maximum scrap handling efficiency. Speed of operation is synchronized with metal removing rate of machines. When drainage of coolants is required, steel belt can be furnished with perforated links.

For complete information on how a **MAY-FRAN** engineered installation can mechanize your scrap handling, write for illustrated catalog.

TOS-MF

MAY-FRAN ENGINEERING, INC.

1711 Clarkstone Rd. Cleveland 12, Ohio

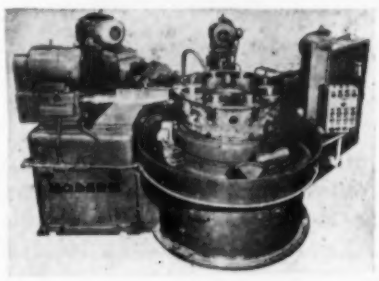
▲ For more details circle NED-2688 on enclosed inquiry slip ▲

RECORD MEASURING DEVICE for continuous film or paper incorporates 2, 4 and 11X lenses

Fast, accurate measurements of records ranging from 16 and 35 mm film to 12-in. oscillograph paper up to 100 ft in length can be made with type 17A or 17A-1 Universal Telereader. Instrument can handle either translucent or opaque records. Interchangeable projection lenses of 2, 4 and 11X are provided for record magnification. When used with the Telecordex and summary punch, instrument can print its measurements in decimal form on a typewriter supplied with the former, as well as record such information into punched cards. It is mounted on console type movable cabinet with 12 x 24-in. sloping ground glass screen on which record image is projected. Operation is on 105-125-v 60-cycle ac. Made by **Telecomputing Corp.,** Engineering Dept. UTN, 133 E. Santa Anita Ave., Burbank, Calif.

▲ For more details circle NED-2689 on enclosed inquiry slip ▲

DRILLING, BORING, FACING MACHINE for aircraft jet engine housings features four motor-driven heads



Four motor-operated heads located at 45-degree positions around index table on this semi-automatic drilling, boring and facing machine meet production needs for aircraft jet engine compressor housing. First head core drills, spot-faces and countersinks large hole in one of four identical mounting bosses. Second drills four holes in pad face, third turn-faces pad surface and fourth finish bores the drilled hole. First and second heads are powered by 5-hp motors, while 3-hp motors drive third and fourth heads.

Table which is indexed manually and only in one direction will not over-shoot successive stops. Work can be moved to position not in operating cycle by manual control which rotates and joggs table through index locations without feeding the heads. In operation, table must be in loading position with index pin bottomed before cycle of machine can be started. Three air cylinders lock table down when index pin is in position. Made by **Modern Industrial Engineering Co.,** 14230 Birwood Ave., Detroit 4, Mich.

▲ For more details circle NED-2690 on enclosed inquiry slip ▲

make your PUNCH PRESSES *Automatic*

It's Easy...with WITTEK Roll Feeds and Reel Stands

Wittek Roll Feeds handle any type of coiled strip stock and are made in single roll, double roll, and compound types with straighteners, in models to feed in any of four directions. They are reliable and accurate with simple, quick adjustment of feed length. Standard sizes and models meet a wide variety of press size and capacity conditions.

Wittek Reel Stands facilitate handling coiled stock.

Write for full particulars

WITTEK Manufacturing Co. Automatic ROLL FEEDS AND REEL STANDS

4325 W. 24th Place, Chicago 23, Illinois

▲ For more details circle NED-2691 on enclosed inquiry slip ▲

for LOWER COST *Materials Handling*

Whether you figure by years of use or by tons handled, BAL tote boxes cost less because they last longer. They're *hard* vulcanized fibre, built to last!

Easy to handle, hard to wear out; and double-strength at ALL reinforcements. Trucks as well as tote boxes made in many sizes for various purposes.

TRUCKS & TOTE BOXES

WILLIAM BAL CORPORATION

11 Johnson Street, Newark 5, N.J.

▲ For more details circle NED-2692 on enclosed inquiry slip ▲

WISSCO BELTS

assure trouble-free production schedules

Present-day demands for maximum production call for equipment that can be counted on to stand up and deliver dependable, uninterrupted service—particularly where punishing conditions are encountered.

Wissco Metal Processing Belts are specially engineered in various metals and alloys for long-lasting resistance to abrasion, corrosion and temperature extremes.

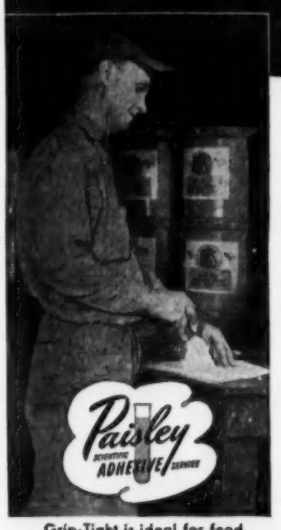
For additional information write or phone our nearest sales office.

THE COLORADO FUEL & IRON CORPORATION—Denver, Colorado
THE CALIFORNIA WIRE CLOTH CORPORATION—Oakland, California
WICKWIRE SPENCER STEEL DIVISION—Clinton, Massachusetts

WISSCO BELTS
PRODUCT OF WICKWIRE SPENCER STEEL DIVISION
THE COLORADO FUEL & IRON CORPORATION CF&I

▲ For more details circle NED-2693 on enclosed inquiry slip ▲

HOLD LABELS *SECURELY!* . . TO TIN, METAL, GLASS



Grip-Tight is ideal for food, chemical, paint cans

GRIP-TIGHT Label Paste, the time tested resin emulsion paste, for hand brushing, definitely holds paper labels smoothly, easily, permanently to hundreds of surfaces and materials including: tin cans, metal pails, steel drums, lacquered, painted, varnished surfaces, glass bottles, metal parts, etc.

Use it for attaching product labels, instruction and caution labels, Express Waybills, circuit diagrams . . this *ONE* adhesive may do all your labeling work.

Fill in coupon for further details or send for trial shipment today.

MAIL THIS COUPON TODAY!

Gentlemen: Please ship F.O.B. Chicago or New York, the following trial order ON APPROVAL. Invoice to be cancelled if merchandise not satisfactory.

....Quart Jars Grip-Tight at $1.15 ea.
....Gallon Jars Grip-Tight at $3.40 ea.
☐ Send Technical Bulletin describing Grip-Tight and complete price schedule.

Name _____
Address _____
City _____ State _____

PAISLEY PRODUCTS INCORPORATED
Manufacturers of Glues, Pastes, Resin Adhesives, Cements and Related Chemical Products
1770 CANALPORT AVE., CHICAGO 16, ILL. ★ 630 W. 51st STREET, NEW YORK 19, N. Y.

▲ For more details circle NED-2694 on enclosed inquiry slip ▲

Chicago RIVET "912"
AUTOMATIC RIVET SETTER
CUTS COSTS 3 WAYS

1 FASTENS FASTER . . . Only the speed of the operator limits the 912's riveting speed. Completely automatic. A push on the foot pedal automatically feeds, inserts and clinches the rivet.

2 DOES WORK OF SEVERAL MACHINES Quick change rotary hopper and raceway makes the 912 adjustable in 5 to 10 minutes to set different size rivets. Adjustable anvil height and 12-inch throat provide further versatility.

3 SAVES ON MAINTENANCE . . . The 912 is massively built to stand the shocks of constant use and is designed for quick, easy servicing and parts replacement.

If your assembly calls for 3/16" steel tubular rivets or smaller, of ¾" lengths or less, ask us to show you how the 912 can cut your fastening costs. Send a sample of your problem assembly (or blueprint) for a free fastening analysis.

FREE CATALOG contains valuable engineering information and rivet specifications plus illustrated descriptions of 26 Chicago Automatic Rivet Setters.

Chicago Rivet & MACHINE CO.
9606 West Jackson Boulevard, Bellwood (Chicago Suburb) Illinois
Branch Factory: Tyrone, Pa.

For more details circle NED-2696 on enclosed inquiry slip

FOR VENTILATION, FUME AND DUST CONTROL AIR CONDITIONING

Light, Strong, Flexible

FLEXAUST
SPIRAL-REINFORCED HOSE

Flexaust is suitable for a wide variety of suction and pressure uses in ventilation, dust collection and fume control. **SIZES 1¼ inches to 24 inches.** Write for full information on this all-purpose hose. Various Flexaust types, accessories, and other hose types also available:

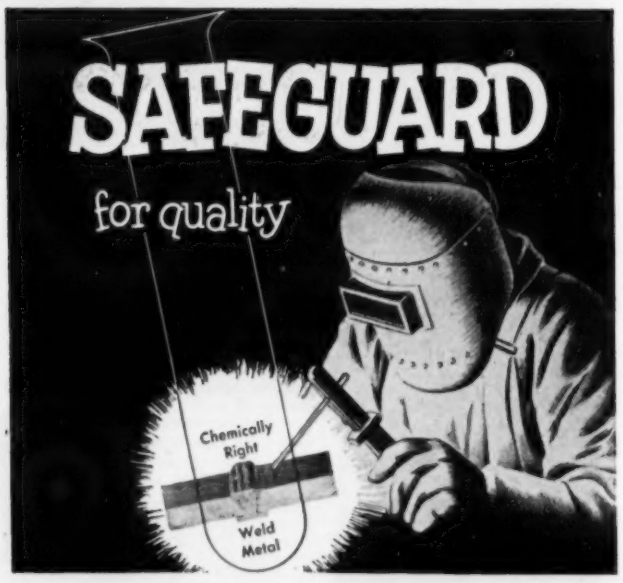
BLOFLEX *Non-reinforced collapsible*

PORTOVENT *Ring-reinforced retractable*

AMERICAN VENTILATING HOSE COMPANY
Dept. N-11, 100 Park Avenue, New York 17, N. Y.

For more details circle NED-2697 on enclosed inquiry slip

SAFEGUARD for quality



Use ARCOS Stainless Electrodes

Dependable weld performance on stainless fabrication requires weld metal with the correct chemical composition.

The Arcos quality controls give you this assurance with every lot of Stainless Electrodes you receive. From the chemical analysis of the raw materials, to the analysis of actual weld metal, every control test is applied to assure you chemically correct weld metal at all times. In your own plant that can mean improved welding performance . . . fewer rejects . . . lower weld costs.

New chart of typical weld metal analysis tells what Arcos electrodes deliver. Copy on request. Arcos Corporation • 1500 South 50th Street • Philadelphia 43, Penna.

WELD WITH ARCOS
Stainless, Low Hydrogen and Non-Ferrous Electrodes

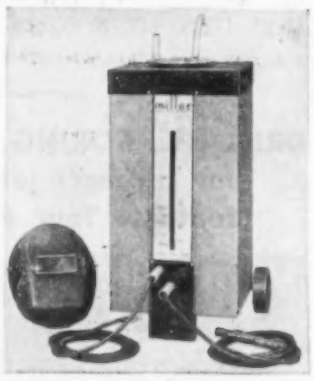
For more details circle NED-2698 on enclosed inquiry slip

RATCHET-LEVER HOIST
handle operates in any position

Retaining the lever ratchet and pawl operating principle, the model R coil-chain hoist eliminates load slippage and holding mechanism freezing. Use of coil permits the chain to swing or wrap easily in any direction. When not under load, it can be pulled freely through the hoist head for quick adjustment. The handle operates in any position with partial or full strokes. Hoist is offered in 1500 and 3000-lb capacities, with all load-holding parts capable of supporting several times these ratings. The handle also serves as a "safety valve" in that it will bend under maximum overload conditions. Made by **Coffing Hoist Co.,** 801 Walter St., Danville, Ill.

For more details circle NED-2699 on enclosed inquiry slip

SMALL ELECTRIC WELDER
handles 1/16 to 5/32-in. electrodes



Practical for small shops and maintenance departments, this small electric welder operates on standard 110 or 220-v power supply and will handle 1/16 to 5/32-in. electrodes. Movable primary coils allow infinite current adjustment throughout welding range. Resettable current control is obtained through adjustable hand crank mounted on top. Amperage is determined by scale on front. Enclosed in heavy steel case, unit weighs 156 lb, has two rubber Oilite bearing 5-in. wheels, handle for portability and is equipped with detachable welding cables with jack plugs. Made by **Miller Electric Mfg. Co.,** 716 S. Bounds St., Appleton, Wis.

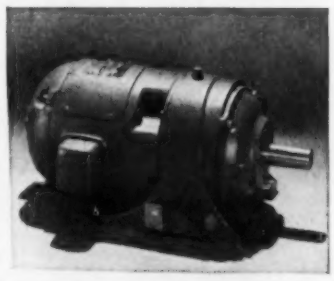
For more details circle NED-2700 on enclosed inquiry slip

TAPE DISPENSERS
measure in predetermined lengths

Dispensers for pressure sensitive tape that save tape and time accurately measure and cut off predetermined lengths of tape from ½ to 5 in. Widths from ⅛ to 1 in. can be dispensed, and free dispensing of any length tape is also possible. Machines are instantly adjusted for different tape lengths. Made by **Livingston & Co.,** 3937 "D" St., Philadelphia 24, Pa.

For more details circle NED-2701 on enclosed inquiry slip

THREE-PIECE GEAR MOTOR
stators easily removed for repair



Design of this gear motor, which includes a G-E Tri-Clad motor, a compact planetary gear and mechanical adapter, facilitates quick and easy removal of defective stators without disturbing gear components or gear connection to load. Motor is available in ratings of 1 to 75 hp for standard applications and up to 200 hp for special uses. Gear element is made in speed ratings of 780 to 13.5 rpm. Mechanical adapter functions as pulley end-shield for motor, motor end-shield of gear housing and mechanical spacer for accessibility to stator frame bolts. Motors are dripproof with ventilation openings located at the bottom. Made by **General Electric Co.,** Schenectady 5, N. Y.

For more details circle NED-2702 on enclosed inquiry slip

NEW ADJUSTABLE DRILL JIG
eliminates layout; cuts drilling time

Used for drilling holes through round stock and hex stock from ¼" to 2" and cap screws from ¼" to 1¼", the new Mathewson Adjustable Drill Jig eliminates layout and can cut drilling time on small lots to a fraction. And it eliminates the costs of special jigs for larger quantities. Holes for cotter pins, set screws, drive pins for bayonet joints, oil holes in tubular sections, and wiring holes in cap screws, are all typical of the operation that can be done more economically with this jig. Hole diameters range from .052" to .531", using your A.S.A. standard slip bushings. The hardened V-block has two 60-degree V's for centering round or hexagonal stock, one for ¼" to 21/32" diameter, one for 21/32" to 2" diameter. Adjustable stop for locating work longitudinally for drilling any distance from end, may be used on either side. Adjustable bushing carriers hold slip bushings and clamp work securely. Jig highly successful in permitting use of inexperienced drill operators. For circular write to: **Mathewson Machine Works,** 22 Hancock St., Quincy, Mass. *Advt.*

For more details circle NED-2703 on enclosed inquiry slip

CALCULAGRAPH
figures elapsed time accurately

Reliable job time records are essential for compiling correct cost data, estimating reorders and checking on production efficiency. One sure way to secure accurate to the minute, dependable time costs is to use Calculagraph automatically-figured elapsed time records. Calculagraph gives you total elapsed time, starting and finishing time and date on a permanent, printed reference card. Eliminate losses due to inaccurate job time calculations by using Calculagraph to time your operations.

Write for full information today, to Dept. A.

CALCULAGRAPH COMPANY
SUSSEX STREET, HARRISON, NEW JERSEY

For more details circle NED-2704 on enclosed inquiry slip

SAVE UP TO 85%

WAR SURPLUS SAVINGS

NEW INSIDE – OUTSIDE VERNIER CALIPERS
German made by one of Europe's leading specialists in precision tools. Measures inside-outside & depth in .001" to 6" in 1000ths and 1/10mm to 150mm in 10ths. 9.75
MICROMETERS – 0" to 1" in 1,000ths. Has lock-nut & ratchet ...ONLY – . . . 9.75

STAND MAGNIFIER
Handy stand magnifier with universal adjustments. Overall height: 6". Has powerful, clear magnifying lens. 1.49

BENDIX HYDRAULIC PUMP & MOTOR
Has 3-1/2 GPM capacity at 600 PSI. Motor is 1½ HP, 24V, D.C. Will operate on either 12 or 32V, DC current. Has built-in relief valve adj. to 1500 PSI. This unit ideal for hyd. lifts, portable loaders, etc. 19.50

MAGNETIC BASE–INDICATOR HOLDER . . .
A time saver for precision checking. Magnetic base fits curved or flat surface. Has 45-50 lb. pull. Stainless steel 6½" rod mounted in ball socket permits universal settings . . 3.50
Note: We have complete line of instruments, depth gauges, inspection mirrors, etc. WRITE TODAY

HYDRAULIC HAND PUMP
Operating pressure 2000 PSI. Cap., 1.5 cu. in per complete cycle . . . 12.75

GEAR HEAD MOTORS
Heavy duty, G.E. Gear Head motor. 2 HP, 24V. DC, 125 amp., reversible motor drives a reduction gear unit giving 36 to 1 ratio at take-off. Also will operate on 6 or 12 volts.
MOTOR ALONE 9.95 GEAR BOX 7.95
36 to 1 G.E. (306 shaft RPM)
28 to 1 Eclipse (130 shaft RPM)
40 to 1 Eclipse (110 shaft RPM)
10.95 EA.

HYDRAULIC ACCUMULATORS
A–28 FLOATING PISTON TYPE – 4" x 18" Built to stand 2,000 PSI 12.75
A–5 VICKERS – 10" dia. Ball type. Built to stand 2000 P.S.I. 19.75

ELECTRIC ACTUATORS
Hundreds of uses for any mechanical device needing controlled 2 way action. Opens, closes, raises or lowers doors – windows – gates – valves. CTU-2 – Foote Linear Actuator – 24 volt, DC, 8500 RPM, 1/6 HP – series wound motor. 4½" stroke in 13½ sec. Compression and tension loads up to 750 lbs. Adjustable micro switch for limits of travel. Overall lngth., retracted 11" 7.95
We also carry many more sizes and types of Actuators. Write today for information.

HYDRAULIC CYLINDERS
Gives 20,000 lb. thrust (push or pull) using 1500 PSI line pressure as obtained from our hydraulic pumps. Will produce up to 40,000 lb. thrust with 3000 PSI. Can also be used on low pressure air systems. 4" bore; 18" stroke; 30½" length. Ideal for round form – shop machinery. 29.75

No. 3 HYDRAULIC CYLINDER
Double action. Bore is 1" – Shaft ½". Has stroke of 2½" to 4". Stroke can be adjusted with internal sleeve stops. Overall length is 8½". Will take 1500 lbs. continuous duty. 3000 lbs. intermittent. Will lift or push up to 1100 lbs. 5.75
We stock over 50,000 Hydraulic Cylinders, Valves, Pumps, Accumulators, Hand Pumps, Motors, Hose, etc. All at Money Saving Prices.

230 Pg. CATALOG
Amazing Values! 1000's of items for Mfgr., Mechanic, Sportsman, etc. Save on Machine Tools, Hydraulics, Pumps, Valves, Hand & Power Tools, Instruments, etc. Send for your copy today!

PALLEY SUPPLY CO. 2263 E. VERNON AVE. Dept. NED-11 LOS ANGELES 58, CALIF.
Order from this ad. Pay by M.O. or check. P.O's. accptd from D&B firms. ½ deposit with C.O.D's. All Prices F.O.B. Los Angeles

For more details circle NED-2705 on enclosed inquiry slip

ONE. Good Way TO SAVE PRODUCTION TIME

KESTER SOLDERFORMS

For Soldering with flame, carbon-resistance, oven, induction and conventional iron

DIMENSIONAL STABILITY Every single Kester Solderform is made exactly to specification. What's more . . . they are delivered that way to you, in perfect condition, because of Kester's scientific packaging.

Write for sample assortment or test samples for your specific job.

KESTER SOLDER COMPANY
4247 Wrightwood Ave., Chicago 39
Newark 5, New Jersey • Brantford, Canada

KESTER SOLDER

For more details circle NED-2706 on enclosed inquiry slip

EXCEL No. 6 PAYS BOTH WAYS

TOOL & CUTTER GRINDING HEADQUARTERS in the smaller shop—

EXTRA SHARPENING SERVICE in the larger plant—

An outstanding value in price and performance! The Excel No. 6 Universal Cutter and Tool Grinder will accurately sharpen reamers and milling cutters in a wide variety of shapes and sizes. A full line of attachments is available for a multitude of applications including cylindrical and internal grinding. Base optional.

Swings work . . . . . 8" dia. x 16" long
Face mill capacity . . . . . 12" dia.
Table surface . . . . . 4" x 24"

Builders of Precision Grinders for 78 Years

PROMPT DELIVERY FOR DEFENSE

COVEL PRECISION GRINDERS
BENTON HARBOR – MICHIGAN

DRILL GRINDERS
CUTTER & TOOL GRINDERS
HYDRAULIC & HAND FEED SURFACE GRINDERS

Write for BULLETIN NE-112

For more details circle NED-2707 on enclosed inquiry slip

EXHAUST PIPE PROTECTORS keep out dirt, rain, insects

Use of Cancap exhaust protectors serves to keep rain, snow, sleet, dirt and insects from entering vertical exhaust pipes of all types of engines. Cap (1) is made of cast aluminum alloy fused around the top of a malleable tear-shaped hinge (2). Malleable mounting bracket (3) slips over pipe and is held by a cadmium-plated set screw. Another screw controls degree of opening. Protector is ordered by outside dimension of pipe. Five sizes fit pipes up to 5 in. OD. Made by **Canton Mfg. Co.**, 2550 Thirteenth St. N.E., Canton 9, O.

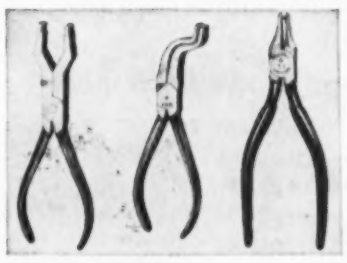
For more details circle NED-2708 on enclosed inquiry slip

FLOAT VALVE is quiet in operation

Design of No. 50 Ballcock float valve allows quiet operation and permits maximum rate of water flow. A stem seat cavity acts as a cushion, causing the water to spray out between the Neoprene seat disk and the stem seat. This action, combined with a three-step regulator and the always-submerged tank refill tube, reduces the noise. Backflow and siphoning are eliminated. All connections are standard. Only three adjustments are required to adapt the valve to most shapes and sizes of tanks. Made by **Mueller Brass Co.**, Dept. S.P., Port Huron, Mich.

For more details circle NED-2709 on enclosed inquiry slip

CUSTOM PLIERS made to perform special functions



Pliers of special design are produced after problem analysis by engineers. Typical are pliers on the left which accommodate a special fitting, while those in the middle are for reaching around an assembly obstacle. Those at right join two strips of light metal together without rivet, staple or fastener. Cost of average custom pliers is reasonable when ordered in quantities of 200 or more. Made by **Utica Drop Forge & Tool Corp.**, Custom Tool Dept., 2500 Whitesboro St., Utica 4, N. Y.

For more details circle NED-2710 on enclosed inquiry slip

Meet the Schedule!

Use PIONEER Stanzoils®

When employees hands are comfortable and properly protected by the *right* gloves for the job:

- there are fewer work stoppages
- injury claims decrease
- work goes faster, production increases

—all at lower per hour glove cost to your plant!

Long-wearing liquid-tight neoprene Stanzoil industrial gloves resist damage from acids, oils, solvents, caustics. 32 styles, weights, sizes, colors. New PIONEER catalog shows you *at a glance* how to select the most efficient and economical gloves for each operation. It pays you to write for your copy today.

N-36 medium weight all neoprene glove, 11" length. Snug curved fingers, non-slip grip surface afford almost bare-hand dexterity.

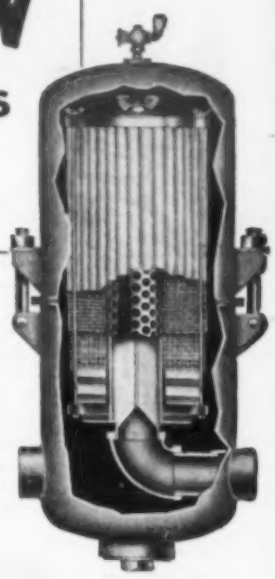
Industrial Products Division
The PIONEER Rubber Co.
634 Tiffin Road • Willard, Ohio

STANZOIL PIONEER

Quality Gloves for Over 30 Years

For more details circle NED-2711 on enclosed inquiry slip

LET STAYNEW LIQUID FILTERS Solve Your Filtration Problems!



Bring your liquid filtration problems to Dollinger engineers. Their specialized experience is available in recommending the most efficient and economical equipment for filtering liquids in a wide range of viscosities, temperatures, acidities, alkalinities, pressures and capacities.

From our 30 years experience in liquid filtration, we have built up a vast file of helpful information. Any part of this information is yours for the asking—no obligation.

MODEL ELS
Staynew Liquid Filter

Representatives in Principal Cities

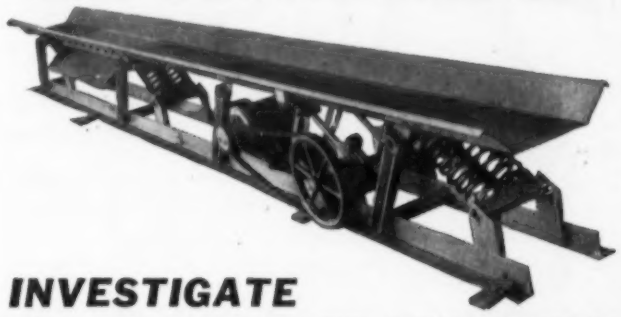
DOLLINGER PROFESSIONAL STAYNEW FILTERS

DOLLINGER CORPORATION
49 Centre Pk., Rochester 3, N. Y.

ALL TYPES OF FILTERS FOR EVERY INDUSTRIAL NEED

For more details circle NED-2712 on enclosed inquiry slip

IF your present conveyors aren't doing a PERFECT job—



INVESTIGATE this amazing NEW CONVEYOR

If your product is too hot, sharp or oily for belt or flight conveying, or too abrasive and sticky for screw or apron conveying — if you're getting excessive spillage, or if you have cleaning problems, etc. — *you owe it to yourself to investigate the Carrier Natural-Frequency Conveyor.*

These revolutionary conveyors are an entirely new *type* of vibrating equipment which substitutes Natural-Frequency spring action for brute force. Where "brute-force" conveyors may use up to 90% of their power to operate their moving parts and only about 10% to convey their loads, *the Natural-Frequency Conveyor uses substantially no more power to operate, empty, than is required to run the motor alone.* Result:

LESS POWER REQUIRED
(1000 foot-tons per hour per H.P.)

LESS MAINTENANCE & DOWN-TIME
(Less power + good design = good service)

GREATER CAPACITY
(From a dribble up to 200 tons per hour)

HIGH CONVEYING SPEED
(Up to 100 feet per minute, on flat hauls)

NO DAMPENING UNDER LOAD
(Designed with extra power for specified load, with positive stroke)

SELF-CLEANING
(Continuous smooth trough — no pockets)

SCREENS, DEWATERS, SEPARATES, BLENDS, DRIES, COOLS
(Combines processing with conveying)

WIDTHS FROM 6" TO 48"; LENGTHS FROM 5' ON UP
(With pans 16 gauge to ½" plate or heavier, open or enclosed)

BALANCED, VIBRATION-FREE UNITS AVAILABLE
(For use on ceilings or light floor construction)

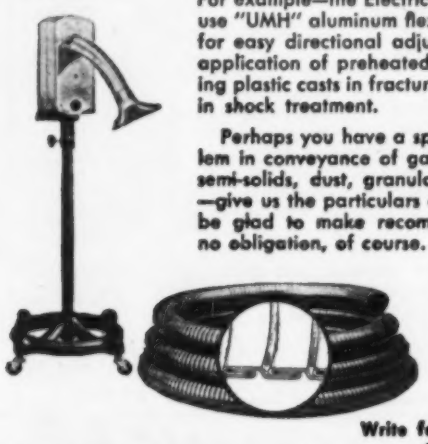
Carrier Natural-Frequency Conveyors (including vertical vibrating spiral types) are now being used in dozens of the largest companies in America. Write for Bulletin 112, *today*. Carrier Conveyor Corporation (formerly Whitley-Carrier Co.), Frankfort Avenue at Clifton, Louisville 6, Kentucky.

CARRIER NATURAL-FREQUENCY CONVEYORS

For more details circle NED-2713 on enclosed inquiry slip

For example—the Electric-Aire dryers use "UMH" aluminum flexible tubing for easy directional adjustment and application of preheated air in drying plastic casts in fracture cases and in shock treatment.

Perhaps you have a specific problem in conveyance of gases, liquids, semi-solids, dust, granular materials—give us the particulars and we will be glad to make recommendations no obligation, of course.



Write for Catalog U-101

UNIVERSAL METAL HOSE CO.

2155 SOUTH KEDZIE AVE. • CHICAGO 23, ILLINOIS

▲ For more details circle NED-2714 on enclosed inquiry slip ▲

NEW INDUSTRIAL HUMIDIFIER

BAHNSON TYPE E Self-Contained Unit Humidifier

Requires only water supply and electrical connection

NOTE THESE FEATURES!

- HIGH CAPACITY—Evaporates 3 gallons per hour with ¼ HP motor.
- AUTOMATICALLY CONTROLLED at any desired relative humidity.
- SIMPLE TO INSTALL—Just uncrate and suspend from ceiling.
- ELECTRIC MOTORS for all common current characteristics.
- WATER SUPPLY connection for ¼" tube or ⅛" pipe provided.
- NEEDS NO pump, duct, compressed air, steam, drain or floor space.
- EFFICIENT centrifugal atomization of ordinary city water.
- TWO MODELS, ¼ HP for high capacity, ⅛ HP for small rooms.

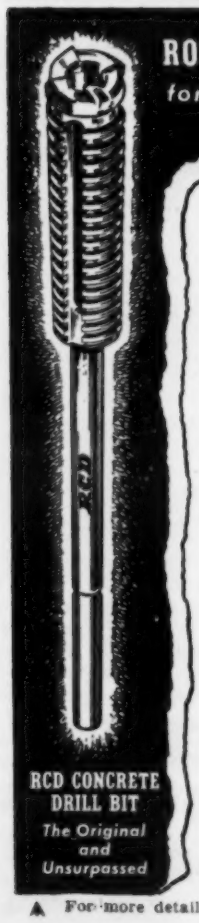
FOR COMPLETE HUMIDIFICATION SYSTEMS, FOR BOOSTING, FOR SPOT HUMIDIFICATION, FOR LABORATORIES

FOR TRULY DEPENDABLE LOW-COST HUMIDIFICATION Bahnson Company ENGINEERS AND MANUFACTURERS WINSTON-SALEM, N. C.

▲ For more details circle NED-2715 on enclosed inquiry slip ▲

ROTARY CONCRETE DRILL BITS

for precision holes thru concrete in fraction of usual time



RCD CONCRETE DRILL BIT *The Original and Unsurpassed*

DRILL BILLY says: *"Drill thru any masonry with RCD Drill Bits"*

Not a precious second is wasted in drilling holes with the original RCD Concrete Drill Bit. Its pulverizing action takes the Bit through concrete, marble, or rock much faster and easier. This lowers time costs. Used with electric or air rotary drills. Standard sizes ¼" to 2" diameter. *Free factory re-sharpening until further notice.*

Send for new low prices and illustrated literature

Personalized guarantee given to every RCD Drill Bit user.

ROTARY CONCRETE DRILL CO.

642 S. Arroyo Parkway • Pasadena 1, Calif.

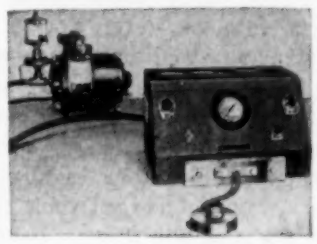
▲ For more details circle NED-2716 on enclosed inquiry slip ▲

PORTABLE ENGINE GENERATOR
starts and runs motors up to 1½ hp

Designed for maximum portability with either a Briggs & Stratton No. 23 or Wisconsin No. AEN 4-cycle engine, model 4500 engine - generator has full output of 115-v, 60-cycle ac. Starting capacity of 4500 w is sufficient to start and run motors up to 1½ hp. Unit has 3000-w intermittent and 2500-w continuous rating and easily operates cut-off saws, electric chain saws, masonry saws, concrete vibrators or lights. Either a tubular cradle base or Speedy-Shift portable base with handle and semi-pneumatic rubber tired wheels is available. Made by **Wincharger Corp.**, 2101 E. Seventh St., Sioux City 2, Iowa.

▲ For more details circle NED-2717 on enclosed inquiry slip ▲

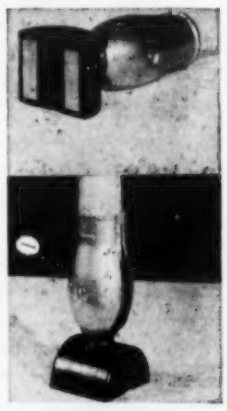
VACUUM TESTER
compact, lightweight and portable



Consisting of a vacuum pump and an instrument panel with attached testing plate, this Vacuum tester can be employed to reveal porosity or surface fissures, or to 'prove' lapped surfaces, ground surfaces or surface flatness. Unit can also test effective sealing of complete assemblies and the efficiency of air cylinders. Tester is compact, lightweight and portable, and can be purchased with or without vacuum pump. Single pump will operate several test panels. Optional equipment includes remote control starter. Independent vacuum and time cycle adjustments are set separately. Made by **Gits Bros. Mfg. Co.**, 1833 S. Kilbourn Ave., Chicago 23, Ill.

▲ For more details circle NED-2718 on enclosed inquiry slip ▲

CLEAN-OUT TOOL
has permanent magnet on pole



By passing this Alnico permanent magnet through paint dip tanks, ferrous particles are attracted to it and subsequent straining is eliminated. Attached to a pole of sufficient length for the application, the magnetic tool can also be used to remove minute ferrous particles from hydraulic system reservoirs and to retrieve parts in plating tanks, acid baths, rinse tanks, heated bake ovens and vapor degreasers. Made by **Standard Portable Cord Co.**, 1302 E. Second St., Jamestown, N. Y.

▲ For more details circle NED-2719 on enclosed inquiry slip ▲

PANEL SAW
for one-man plywood panel cutting

Large panels of plywood are easily cut to any desired size by one man using the No. 48 panel saw. Plywood is placed on an inclined bed which has an adjustable overhead way supporting a carriage that can be rolled from left to right along a scale to the desired length of cutoff. After locking at this point, the saw is pulled downward to make the cut. For ripping, the motor unit rotates 90 degrees and has an adjustable stop for cut location. The saw can also be tilted for bevel rip or bevel crosscut work. Dadoing, plowing and cutoff work on board stock can also be performed. Cross cuts up to 48 in. and rips to 8 ft can be made. Machine requires floor area of 3½ x 11½ ft and can be placed against a wall. Made by **J. D. Wallace & Co.**, 145 S. California Ave., Chicago 12, Ill.

▲ For more details circle NED-2720 on enclosed inquiry slip ▲

DYNAPRENE

Flexible Cord

DYNAPRENE is better because it lasts longer. It is made of an exceptionally tough neoprene compound developed after extensive research and experience. It is made by the continuous vulcanizing process that guarantees accurate centering and even cure, eliminating thin, weak spots. DYNAPRENE is a truly modern cord made to withstand the rigors of constant use yet is priced only slightly higher than other types of cord that need frequent replacement.

Be sure to specify Whitney Blake type SO, SJO or SV-type neoprene jacket for your cord requirements.

WHITNEY BLAKE CO.
WELL BUILT WIRES SINCE 1899
NEW HAVEN 14, CONNECTICUT

▲ For more details circle NED-2721 on enclosed inquiry slip ▲

Yes, We Can Do It!

We Can Quote on Your Application, Accept Your Order and DELIVER

We are in an enviable position whereby we can deliver the answer to your assembly problem in the form of a particular piece of equipment designed especially for your needs . . . We can do it NOW—not maybe—some time in the future. Though generally speaking, deliveries throughout industry are uncertain, and this situation probably may continue for some time, our position is different . . . We have marshalled our resources and facilities in a way whereby we can positively assure the execution and delivery of your orders without delay.

DETROIT POWER SCREWDRIVERS, HOPPER FEEDING UNITS

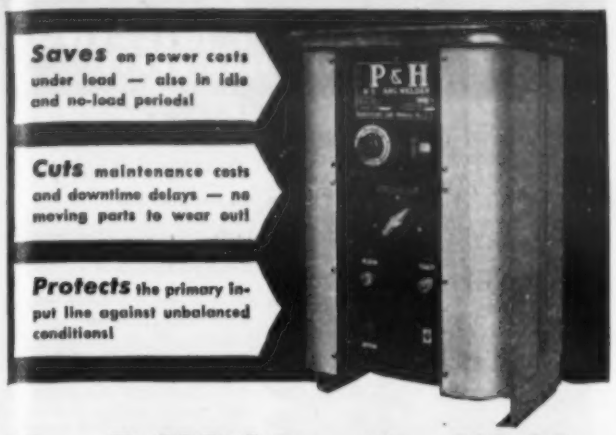
NUT DRIVERS, SPECIAL ASSEMBLING MACHINES

Thousands of manufacturers have profited through greatly stepped-up production as a result of our service. You, too, can benefit by the use of D. P. S. power-driven machines. Get further details. Also send sample assembly for production estimate.

DETROIT POWER SCREWDRIVER CO.

2819 W. FORT ST. DETROIT 16, MICH.

▲ For more details circle NED-2722 on enclosed inquiry slip ▲



New P&H DC Rectifier Welder
— with Dial-lectric Control

Gives you economy, quiet operation, balanced-line loading, and instantaneous remote control.

You get low-cost DC welding current without a generator, from this new P&H DC Rectifier Welder — industrial twin to the famous P&H AC Dial-lectric Welder. Two sizes: 200 and 300 Amps at 40V.

No troublesome mechanical devices to control amperage—simply turn a single radio-type knob. This and other P&H extra-value features help you realize savings on power consumption and maintenance.

Ask your P&H representative or distributor for further information. Or write direct.

P&H WELDING DIVISION
HARNISCHFEGER CORPORATION
4537 WEST NATIONAL AVENUE
MILWAUKEE 46, WISCONSIN

Power Shovels • Crawler and Truck Cranes • Overhead Cranes • Hoists • Arc Welders and Electrodes • Soil Stabilizers • Diesel Engines • Pre-Fabricated Homes

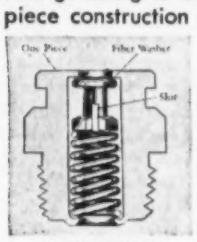
24928

▲ For more details circle NED-2723 on enclosed inquiry slip ▲

A NEW UNIVERSAL DEVELOPMENT

Giant Buttonhead Grease Fittings with One-Piece Construction!

To solve a problem, Universal Giant Buttonhead Fittings bring a design new to the field. Their one-piece construction prevents the leaking possible with conventional two-piece buttonhead fittings which can be separated by extreme pressure or jolting.



CROSS SECTION

Universal Giant Buttonhead Fittings are stronger, longer-wearing, abuse-resisting. A rugged steel inner-spring combines with a fiber sealing washer to prevent grease leak-back. *Check your machinery.* Wherever a conventional two-piece grease or oil fitting is vulnerable to being knocked apart by a jolt or high pressure, that's the place for Universal.

Discover more about these revolutionary new one-piece giant buttonhead fittings. They come in all regular sizes. Write now for complete information.

UNIVERSAL LUBRICATING SYSTEMS, INC.
792 Allegheny Avenue Oakmont, Pa.

▲ For more details circle NED-2724 on enclosed inquiry slip ▲

A Cleveland Tramrail System with motor-driven roll grab picks up, delivers and sets in place rolls from 24-inch to 72-inch diameter, in lengths to 86 inches and weights up to 6,000 pounds. All motions of the crane and grab are controlled by operator without need of leaving cab.

GET THIS BOOK Write for Booklet 2012 giving details.

CLEVELAND TRAMRAIL DIVISION
THE CLEVELAND CRANE & ENGINEERING CO.
6601 East 285th St., Wickliffe, O.

CLEVELAND TRAMRAIL

▲ For more details circle NED-2725 on enclosed inquiry slip ▲

OFFICE FURNITURE
modular type fully utilizes space and layouts can be varied as needed

All elements in office procedure—space and equipment requirements, paper handling and employee functioning, are met by Steel Techniplan modular office furniture. Components can be changed into various forms as each new work requirements arises. Up to 36 per cent more persons can be accommodated in the same space with this equipment.

At right angles to a full-size desk top, is an auxiliary top forming an "L," supported by a thin end. The desk top can be supported by a desk pedestal with drawers or a panel end. Horizontal sectional filing units of various types can be added under the auxiliary top when needed. Units can be equipped with acoustic, glass or steel partition panels for semiprivacy. Electric conduits, bookshelves, fluorescent lighting and wastebaskets can be attached. Made by **Globe-Wernicke Co.**, Dept. T, 5028 Carthage Ave., Cincinnati 12, O.

▲ For more details circle NED-2726 on enclosed inquiry slip ▲

SERVICE WORK TOOLS
includes tension-indicating wrench

The No. 8099½H tension - indicating wrench with ½-in. square drive and in the 150 ft-lb range, a male drain plug wrench and a pair of groove pliers are the latest additions to the Duro-Chrome line of tools to facilitate service work. Improved drain plug wrench has slightly round corners to prevent wedging and avoid knuckle - busting. Six adjustments ranging from closed position to 1⅜-in. opening with jaws parallel are offered by the groove pliers which are made of chrome alloy steel, chrome plated and polished. Photo shows the tension-indicating and drain plug wrenches. Made by **Duro Metal Products Co.**, Dept. ND-1, 2681 N. Kildare Ave., Chicago 39, Ill.

▲ For more details circle NED-2727 on enclosed inquiry slip ▲

best choice . . . . productionwise!

• Ready Tool Company is the world's largest manufacturer of precision engineered centers . . . all exclusive developments of RED-E engineers. Varied sizes, tapers and shanks for EVERY NEED . . . guaranteed to reduce operating costs, increase production, eliminate maintenance. Write for literature.

CENTER *Specialists since 1908*

RED-E TOOLS READY TOOL COMPANY
561 Iranistan Ave.
Bridgeport 5, Conn.

▲ For more details circle NED-2728 on enclosed inquiry slip ▲

If you use bin-stored materials you can handle them better with a Simplicity Os-A-Veyor type bin feeder

If you move anything that can be stored in a bin, chances are a Simplicity Os-A-Veyor type bin feeder will cut handling costs and speed up your operations. Simplicity Bin Feeders practically eliminate bridging and stoppage because they feed from the full length of the bin—materials will flow as you need them. Simplicity bin feeders are ideal, too, for storing and moving materials that are improved by tempering. Simplified power and operating mechanism keeps maintenance costs low, makes servicing easy. Write us today for complete information.

Simplicity ENGINEERING CO., DURAND, MICH. 101

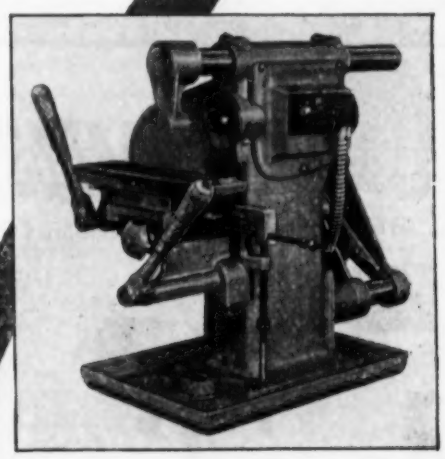
▲ For more details circle NED-2729 on enclosed inquiry slip ▲

Why tie-up
BIG INVESTMENT MILLING MACHINES

with work that can be done quicker and easier on

BURKE BENCH MILLERS

It is amazing how much miscellaneous and production milling can be shifted from large millers to rugged, accurate, economical Burke Bench Millers.



Complete data on hand-feed, power-feed and universal models and attachments sent on request.

Thousands now at work in production lines and tool, repair, development and school shops.

The *Burke* Machine Tool Co.
A Division of the U.S.-BURKE MACHINE TOOL CO.
BROTHERTON ROAD 2
CINCINNATI 27, OHIO

▲ For more details circle NED-2730 on enclosed inquiry slip ▲

M & M Reduction Machines are rapidly gaining favor in industry for converting waste to uniform size for easy handling and in many cases into valuable by-products. Cut your disposal costs with an M & M Reduction Machine. Send us your problems.

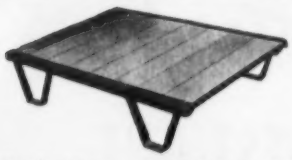
MITTS & MERRILL

1000 South Water • SAGINAW, MICHIGAN

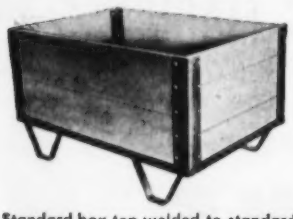
▲ For more details circle NED-2732 on enclosed inquiry slip ▲

In production or in storage

IRONBOUND EQUIPMENT HANDLES SMALL PARTS MORE EFFICIENTLY



Standard 2-way entry bolted type skid built to handle loads up to 5 tons.



Standard box top welded to standard skid. Available too, with removable boxes. Handles many items in production and storage.

Flexible arrangement of boxes and skids permits tiering and stacking to meet your individual requirements. Provides quick availability, easy handling, or storage for complete units or parts.

Each of the units illustrated has an important use in modern industry. Ironbound skid platforms and box tops are prime sources of increased plant capacity so vitally needed today. Our representative can help you to increase your output and plant space. Catalog GP-7 may help you, too!

IRONBOUND
BOX & LUMBER COMPANY
Materials Handling Division
55 HOFFMAN PLACE • HILLSIDE, N. J.

MANUFACTURERS OF QUALITY BUILT SKIDS, SEMI-LIVE SKIDS, FLOOR TRUCKS, ROLL TRUCKS, DOLLIES AND PRY BARS

▲ For more details circle NED-2733 on enclosed inquiry slip ▲

ENAMELSTRIP

STEEL · ALUMINUM · BRASS · PRE-FINISHED COLOR COIL

assures a perfect finish before fabricating

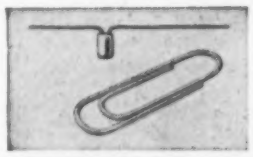
You can easily cut production time and cost with Enamelstrip, the continuous-feed, pre-colored metal coil. Leading manufacturers of metal products are using it with outstanding results in a wide variety of items. Enamelstrip's exclusive, flexible finish withstands the stresses of drawing, bending and forming without cracking or peeling. Many companies have entirely eliminated their finishing departments! Any metal in any finish will be coated and slit to your own specifications.

Write TODAY for detailed color bulletin.

THE COATED COIL CORPORATION
507 West 30th Street, New York 1 • LOngacre 5-3161

▲ For more details circle NED-2734 on enclosed inquiry slip ▲

SELENIUM DIODES operate in 50 to 100° C range



Line of subminiature diodes for operation in ambient temperature range of 50 to 100° C now includes selenium types 1S1 and 5U1 rated 26 v rms at 100 microamperes output and 130 v at 1.5 ma, respectively. Units are encapsulated within thermosetting plastic for protection against adverse environments. They are being used to provide bias for tubes in military and commercial electronic equipment. Output voltages available by use of these diodes are 20 to 100 v at 100 microamperes to 1.5 ma. Paper clip in photo indicates relative size of diode. Made by **International Rectifier Corp.**, 1523 E. Grand Ave., El Segundo, Calif.

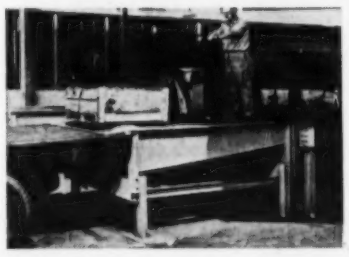
▲ For more details circle NED-2735 on enclosed inquiry slip ▲

SAFETY GOGGLES fit over standard glasses

Wearer comfort is built into model 440 Eye-Saver safety goggles with the incorporation of an extra-wide lens, improved nosebridge design, soft plastic frame and even weight distribution. Large enough to fit over any prescription glasses, they have lens which exceed Federal specification for impact resistance and optical clarity. Protection is offered from grinding chips, chemical splash, molten metal splatter and other eye hazards. Replaceable lens are clear and light, medium and dark greens. Ventilated and unventilated frame types are offered. Made by **Watchemoket Optical Co.**, Dept. N31, 232 W. Exchange St., Providence 3, R. I.

▲ For more details circle NED-2736 on enclosed inquiry slip ▲

PORTABLE LOADING RAMP hydraulically operated by pushbutton

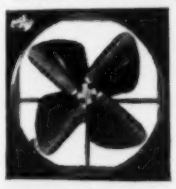


Portability and adjustability are features of this loading ramp which can be installed in 5 minutes at any loading dock. Its hydraulically operated platform can be adjusted to any truck bed height in a few seconds. Manual and electric powered models are available. Deck travel is 24 in. An adjustable throw plate can be easily raised or lowered for installation inside buildings without interfering with doors. Leg supports, not required for recessed installations, are furnished with in-front-of-dock ramps. Capacity of ramp is 20,000 lb. Made by **John B. Illo Engineering Co.**, 2414 E. 57th St., Los Angeles 58, Calif.

▲ For more details circle NED-2737 on enclosed inquiry slip ▲

EMERSON ELECTRIC EXHAUST FANS

for COMPLETE ventilation of commercial, industrial and institutional buildings



Belt-Drive Exhaust Fans with 24- to 48-inch blades

Direct-Drive Exhaust Fans with 12- to 30-inch blades

In this complete line of exhaust fans, you'll find the right model for the majority of air-moving jobs . . . *right* blade size . . . *right* capacity . . . *right* mounting for installation at any angle.

And ALL Emerson-Electric Exhaust Fans provide quiet, trouble-free performance season after season. Each unit is backed by 62 years of precision design and manufacturing experience.

For further information write today for Bulletin No. T77.

THE EMERSON ELECTRIC MANUFACTURING CO.
St. Louis 21, Mo.

EMERSON ELECTRIC
FANS • MOTORS APPLIANCES

▲ For more details circle NED-2738 on enclosed inquiry slip ▲

MORE EFFICIENT MILLING OF SMALL PRECISION PARTS

Atlas MILLING MACHINE

- Complete V-belt drive
- Handles full range of milling operations
- Timken bearing equipped
- Choice of manual, Production lever, or Change-O-Matic power feed
- Lowest cost miller on the market

OPERATING CAPACITIES
10" Longitudinal table travel
3½" Cross table travel
6" Vertical table travel
8 Spindle speeds 62 to 2870 RPm
.386" to 11.250" Feed range per minute

YOU PUT the milling of small precision parts on a maximum-efficiency basis with the Atlas. It performs the full range of milling — from slabbing and facing cuts to end milling, keyways, finishing, and layout work — with the same exacting precision and dependability of large expensive machines . . . *at lower cost.*

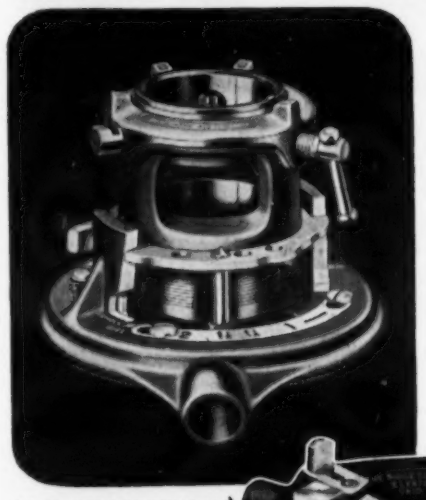
It saves many hours monthly on set-ups, saves on power and operating costs — frees bigger machines for jobs that only they can handle. Every feature of larger machines "built down to size" make this the outstanding low-cost miller. Your Atlas distributor will gladly supply full details, or write for complete catalog.

ATLAS PRESS COMPANY
1015 N. PITCHER STREET, KALAMAZOO, MICHIGAN

Atlas DEPENDABLE QUALITY TOOLS SINCE 1911

▲ For more details circle NED-2739 on enclosed inquiry slip ▲

For *Extra* Fast Easy Smooth Pipe Threading Choose RIDGID Work-Saver Die Stocks



JAM-PROOF 65R
Perfect threads on 1" to 2" pipe with 1 set of 4 high-speed steel dies — sets to pipe size in 10 seconds. Lead screw on barrel won't jam on workholder—drive plate automatically kicks out driving pawl. Self-centering workholder sets instantly!

4P GEARED THREADER
For 2½" to 4" pipe. Balanced loop handles—easy to lift 4P where you want it. Mistake-proof workholder sets to size before put on pipe—1 set screw. Safe enclosed gear. Practically no upkeep. Special 4P for conduit.

OOR RATCHETS
For ⅛" to 2" pipe. Heads snap into ratchet ring from either side, won't fall out. Precision-cut alloy dies reverse for close-to-wall threads. 00R and 0R, ⅛" to 1"; 111R and 11R, ⅛" to 1¼"; 12R, ⅛" to 2". Conduit dies, too.

EXTRA VALUE
RIDGID's are famous for efficient design, smooth performance, rugged durability. Every die stock factory tested. For top value for your money, buy RIDGID threaders from your Supply House.

THE RIDGE TOOL COMPANY • ELYRIA, OHIO

RIDGID Work-Saver Pipe Tools

▲ For more details circle NED-2740 on enclosed inquiry slip ▲

CHROMALOX "PACKAGED" Electric IMMERSION HEATERS

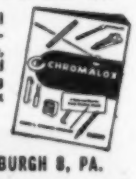
WITH BUILT-IN THERMOSTATS

For heating water, oils, tars, greases, plating baths, pickling solutions, etc.

"Packaged" Chromalox Electric Heaters, combining heater and thermostat, are the economical, efficient solution to many heating problems. Uses include: heating tanks, drums and process kettles; melting greases, asphalts and similar viscous fluids; heating degreasing, pickling and plating baths. Available with sheaths of copper or steel, and with lead for use in corrosive solutions. Types, sizes and ratings to meet your needs.

For *all* the facts get CATALOG 50

It gives full data on thousands of time, money and labor-saving Chromalox Units.



IB-14

EDWIN L. WIEGAND CO., 7509 THOMAS BOULEVARD, PITTSBURGH 8, PA.

See other advertisement on page 4.

CHROMALOX IB-88

ELECTRIC HEAT FOR MODERN INDUSTRY

▲ For more details circle NED-2741 on enclosed inquiry slip ▲

WRITE YOUR OWN TICKET FOR

Quality Wire!

SPECIFY SENECA FOR WIDE RANGE OF USES

- ☐ Aircraft
- ☐ Armature
- ☐ Cable
- ☐ Car Seal
- ☐ Cotter Pin
- ☐ Curtain Spring
- ☐ Flexible Shaft
- ☐ Glass Netting
- ☐ Hair Pin
- ☐ Lock Spring
- ☐ Piston Ring
- ☐ Plow Steel
- ☐ Ring Traveler
- ☐ Rope
- ☐ Spark Coil Core
- ☐ Spring
- ☐ Stapling
- ☐ Stitching
- ☐ Weaving

Whatever your needs in wire . . . specify SENECA for *top quality* and *uniformity!* High or low carbon steel wire . . . aluminum . . . bronze. Sizes No. 40 W & M (.007) and larger . . . round, half round, oval, square, flat, straightened and cut. Finishes—bright, soft annealed, coppered, liquor, tinned, bright galvanized, oil tempered, enameled. Write about your requirements.

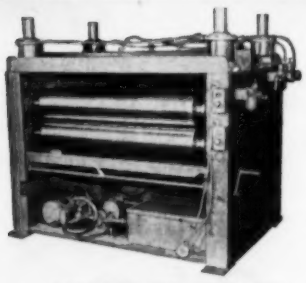
SENECA WIRE & MANUFACTURING COMPANY, FOSTORIA, OHIO

Representatives in practically All Principal Cities

▲ For more details circle NED-2742 on enclosed inquiry slip ▲

UNION AUTOMATIC COMPOUND SPREADERS

SAVE *8 WAYS



1 "Die life increased 75%."
2 "Production increased 20%."
3 "Compound saving of 16%."
4 "Rejects reduced 10%."
5 "One helper eliminated."
6 "Paid for itself in 54 days."
7 "Able to use salvage stock for some operations."
8 "25,000 more pieces before changing dies."

MODELS TO FIT ANY STOCK UP TO 96" WIDTH

Union is the foremost designer and manufacturer of roller coating machines for application of drawing or stamping compounds and protective coatings.

Models may be equipped with hardened steel, or with neoprene-covered rolls—also with heated or cooled rolls—to meet your individual requirements.

*The above claims are based on actual statements by users, both large and small—a number of whom have ordered a second and third machine.

Complete data and agent's name on request. Union will design and/or manufacture coating machines to meet your specific requirements.

UNION TOOL CORP.
314 E. MARKET ST., WARSAW, IND., U.S.A.

USERS SAY UNION CUTS COSTS, SPEEDS PRODUCTION

▲ For more details circle NED-2743 on enclosed inquiry slip ▲

TELEVISION CAMERA
self-contained and highly portable

This self-contained, highly portable business or industrial television camera measures 14 x 9⅜ x 4⅝ in., allowing its placement for viewing almost any operation in any location. Hazardous or remote operations can be observed readily. For remote viewing, any standard TV receiver can be connected to camera by means of single coaxial cable. A single camera can be hooked-up with one or more receivers, or a number of these cameras set at different locations can televise to one or more receivers. Equipped with built-in electronic view-finder, camera operates with standard 16-mm lens and is fitted for mounting to standard tripod or fixed-mounting. Normal room light is sufficient for successful transmission. Made by **Dage Electronics Corp.**, 65 N. Second St., Beech Grove, Ind.

▲ For more details circle NED-2744 on enclosed inquiry slip ▲

SHEET METAL BUTTWELDERS
two models weld 33 and 66-in. seams at possible speeds of 4 to 120 ipm

Production of cylindrical forms from flat sheets or strips as well as welding open-end cones, ovals and square forms in wide range of diameters, lengths and gages is primary application of the Solar buttwelder. Two models for welding seams up to 30 and 66 in. long are available. Cylinders and open end cones with minimum diameter of 3 in. on 30-in. model and 5 in. on 66-in. machine can be joined.

Equipped with G-E type 6WD-4200 arc generator, buttwelders will handle ferrous and similar alloy materials from 0.025 to 0.100-in. thick. Alignment of seam is facilitated by milled groove in back-up bar and involves only centering joint along this line. Foot levers bring clamps to bear evenly. Recommended welding speeds range from 12 to 30 ipm, while gear sets for speeds of 4 to 50 ipm and 10 to 120 ipm are available. Operator's eyes are shielded from arc by dark glass screen. Made by **Solar Aircraft Co.**, 2202 Pacific Highway, San Diego 12, Calif.

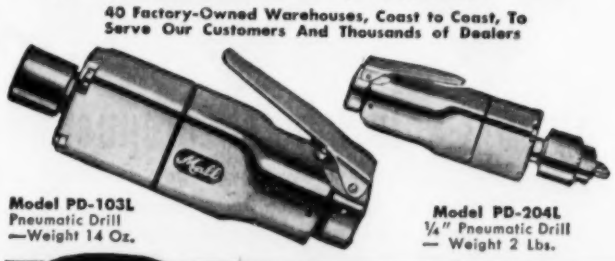
▲ For more details circle NED-2745 on enclosed inquiry slip ▲

Work EASIER—FASTER with Mall "Mighty Midget" PNEUMATIC DRILLS

Lighter—Smaller—More Powerful Than Any Similar Type Tools . . .

You can't beat the handling ease of a Mall "Midget" Pneumatic Drill . . . Weighs less than a pound in your hand—with lever or button throttle for added convenience. Attachments for wire brushing, grinding, rotary filing, sawing and sanding fit directly into chuck. Equipped with latest type "noise silencer" for quiet operation. Drills come with Kett 3-Jaw chuck spanner and open-end wrench, lubricant, and ¼" x 8' air hose. *Send for Descriptive Bulletins.*

40 Factory-Owned Warehouses, Coast to Coast, To Serve Our Customers And Thousands of Dealers



Model PD-103L Pneumatic Drill —Weight 14 Oz.

Model PD-204L ¼" Pneumatic Drill — Weight 2 Lbs.

MALL TOOL COMPANY
7727 S. Chicago Avenue • Chicago 19, Illinois

▲ For more details circle NED-2746 on enclosed inquiry slip ▲

Bolts . . . Nuts . . . Rivets . . . Screws—have provided their users with almost 100 years of the same dependable uniformity of quality and accuracy of finish that has made CLARK Products famous for their greater security and ease of application.

For Greater Security . . . Fasten Fast with Clark Fasteners

CLARK BROS BOLT CO.
MILLDALE, CONN.

6-M-2a

BOLTS • NUTS • RIVETS • SCREWS

▲ For more details circle NED-2747 on enclosed inquiry slip ▲

Eyestrain here

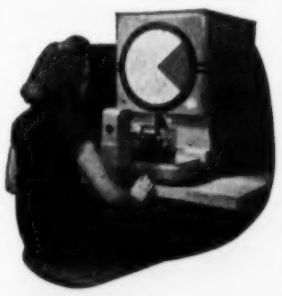
used to be a big cost factor for MONROE

These little plunger pins locate the dials on the Monroe LA Desk Calculator. Each has a 90° cone point that fits into a detent of 110° included angle.

Previously, binocular microscopes were used to check cone angle, length, roundness, and diameter of these pins. But, the inspectors had to spend considerable time just resting their eyes—and running up the cost of the reliability that Monroe customers expect.

Now the microscopes and eyestrain are gone—the pins are checked on the Kodak Contour Projector, Model 3. Moreover, with the unique Surface Illuminator, inspectors are able to check surface finish on the cone tip of the plunger at 50×, to make sure of free movement and positive stopping of the calculator dials.

A battery of Kodak Contour Projectors, Model 3, are inspecting large volumes of complex parts for Monroe. By optical gaging, inspection time has been brought down from an average of 50 seconds per piece to 12 seconds per piece. If you'd like to see such economies effected in your quality control program, we suggest you send us sample parts and specifications. Eastman Kodak Company, Industrial Optical Sales Division, Rochester 4, N. Y.



the KODAK CONTOUR PROJECTOR

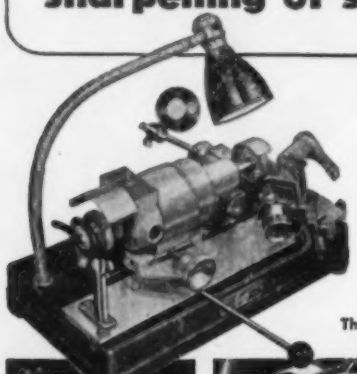
Optical Gaging

A new sound movie shows how to simplify complex inspection problems. We'll tell you how to get it for a showing.

Kodak

▲ For more details circle NED-2748 on enclosed inquiry slip ▲

This new DUMORE® grinder eliminates hand sharpening of small drills

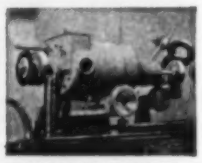


This remarkable new grinder sharpens small twist drills with amazing speed and precision. Does away with expensive maintenance of 2-lip drills, No. 70 to ¼". Grinds drill point angles — 90° to 150°, clearance angles 5° to 15°. Reclaims small-size and broken drills. Drills stay sharp longer, last longer.

These features make the Dumore Precision Grinder better

EXCLUSIVE FEED-IN ATTACHMENT—Eliminates breakage and wheel gouging. Allows fine control of finish cuts.

BROKEN DRILL RECLAIMER — Roughing wheel for grinding and reshaping. Drill rest serves as fixture for wheel dresser.



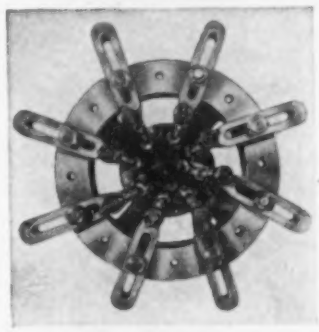
ECONOMICAL WHEEL COST — No expensive shaped wheels. Web-thinning and roughing wheels eliminate frequent wheel dressing.

Ask your industrial distributor for a demonstration, or write

THE DUMORE COMPANY
1333 Seventeenth St., Racine, Wis.

For more details circle NED-2749 on enclosed inquiry slip

ADJUSTABLE DRILL HEAD multispindle design is flexible



Adjustable to any desired pattern of holes, Universal Joint drilling head is available with from 4 to 12 spindles. Aluminum housing, thrust bearings and integral spindle gears are features. Head is offered in No. 0 size with range of 0 to ¼-in. and full range of collets, and as No. 1 with a 3/16 to ½-in. range with No. 1 Morse taper sockets or chucks for straight-shank drills. Made by **Errington Mechanical Laboratory, Inc.,** 26 Norwood St., Staten Island 4, N. Y.

For more details circle NED-2752 on enclosed inquiry slip

WROUGHT COPPER FITTINGS of solder joint type for tubing

Designed expressly for refrigeration and air conditioning service involving air, water or gas, line of wrought copper solder-joint fittings includes sizes from ¼ to 4-in. nominal tubing sizes. Features include ease of installation in tight places, expansion and contraction at same rate as copper tube and smooth inside walls that offer minimum resistance to flow. Made by **Chase Brass & Copper Co.,** Dept. N-11, Waterbury 20, Conn.

For more details circle NED-2753 on enclosed inquiry slip

RESISTANCE METER tests transformers, condensers

Model C-3 resistance meter, a compact and portable instrument, serves as a combined ohmmeter and leakage tester for the production testing of transformers, condensers and other equipment. Useful range is 1 ohm to 1 million megohms. Four ohmmeter ranges are powered by a 1½-v battery, while the six megohm ranges apply to maximum of 105 v to the unit under test. Accuracy is plus or minus 3 per cent of full scale deflection for all ranges except the highest megohm range where error is plus or minus 5 per cent. Made by **Southwestern Industrial Electronics Co.,** Dept. NE-P2, 2831 Post Oak Rd., Houston 19, Tex.

For more details circle NED-2754 on enclosed inquiry slip

Reduce Engine Maintenance With... "HAYNES STELLITE" ALLOY Trade-Mark VALVE SEAT INSERTS

Over 170,000 miles of trouble-free service are usually given by HAYNES STELLITE alloy valve seats in diesel engines for buses and trucks. In gasoline engines, too, these alloy seats have phenomenal life between valve grinds.

The reason HAYNES STELLITE alloy valve seat inserts give such superior service is that they are made of a hard (Rockwell C51-54), cobalt-base alloy. The seats have excellent resistance to heat, corrosion, and erosion. They provide a tight valve fit long after ordinary seats have to be reground to prevent loss of power and waste of fuel.

For further information about HAYNES STELLITE alloy valve seat inserts and for prices, get in touch with our general offices in Kokomo, Indiana.

Haynes Stellite Company
A Division of Union Carbide and Carbon Corporation
UCC
General Offices and Plant: Kokomo, Indiana

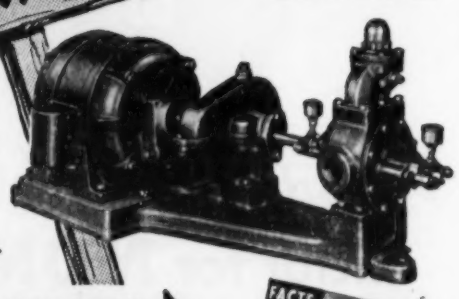
"Haynes Stellite" is a trade-mark of Union Carbide and Carbon Corporation.

For more details circle NED-2756 on enclosed inquiry slip

BLACKMER

THE PUMPS THAT ARE SELF-ADJUSTING FOR WEAR

The self-adjusting design maintains full pumping capacity even after years of severe service.



WHEREVER LIQUIDS ARE HANDLED

Capacities 5 to 1500 G.P.M.

Get the "FACTS"

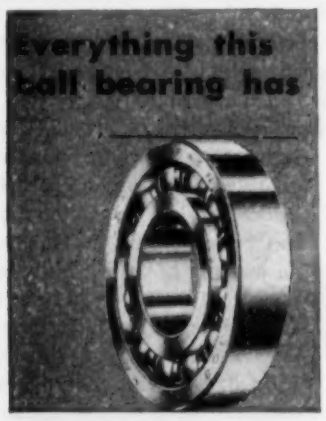
Blackmer Pumps
Blackmer Pump Company
Grand Rapids 9, Michigan

Write for a copy!

For more details circle NED-2750 on enclosed inquiry slip

MERRILL BROTHERS
56-13 ARNOLD AVENUE MASPETH, N. Y.

For more details circle NED-2757 on enclosed inquiry slip



you can get in FAFNIR Ball Bearings this small

• For extremely small shafts in instruments, home appliances, cameras and projectors, fractional h.p. motors, Fafnir makes several series of extra small ball bearings . . . in metric bore sizes down to 4 mm and in inch sizes down to ⅛". Available with standard, special or super-precision tolerances. Three constructions . . . filling slot, non-filling or spring type retainers. Can be fitted with grease shields, felt seals, Mechani-Seals or Plya-Seals. If you want top performance on a small shaft — Fafnir has the answer. Write for new Instrument Bearing Catalog. The Fafnir Bearing Company, New Britain, Conn.

FAFNIR
BALL BEARINGS

MOST COMPLETE LINE IN AMERICA

For more details circle NED-2751 on enclosed inquiry slip

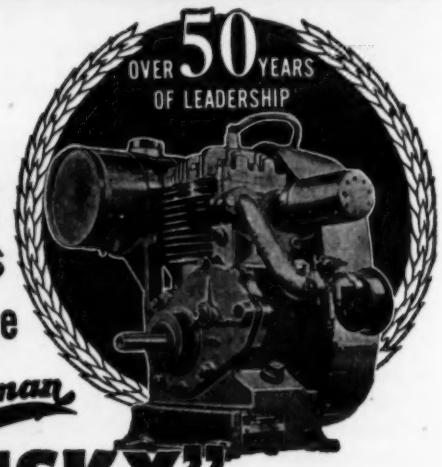
Special cold headed products

. . . nails • rivets • screws . . . made to order

. . . and to your specifications in any metal. Large raw material inventory for your convenience. Send drawing—advise quantity. *Free catalog on request.*

JOHN HASSALL INC.
398 Oakland Street, Brooklyn 22, New York

For more details circle NED-2755 on enclosed inquiry slip



Industry depends on the Cushman "HUSKY"

The advance designed Cushman "Husky," a compact, lightweight engine has proved its worth over half-a-century of efficient and dependable service. Four-cycle, single cylinder, L-head Cushman "Husky" engines, with three models developing from 1.5 to 6.0 h.p., are adaptable to hundreds of operations. The "Husky" is particularly suitable for original equipment installations requiring high-output, long life engines.

Sturdy "Husky" engines are designed to deliver their full rated horsepower hour after hour under load with maximum economy and minimum service and attention.

Serviced Internationally by Cushman Motor Scooter Dealers
Investigate today by writing for free details and information.

CUSHMAN MOTOR WORKS, INC.
968 NO. 21ST ST. — LINCOLN, NEBRASKA

For more details circle NED-2758 on enclosed inquiry slip

PRODUCTIMETER "SPECIALS"
for Radar and Electronic Applications

High-speed, non-reset "Y" type counter for building into radar instruments.

Special counter adapted from "CS" Top Reading Model for instrumentation application.

"Y" 2-figure Rotary Counter used in navigating instruments.

Productimeter "SPECIALS" are designed and manufactured for specific counting applications. Where one of many standard Productimeters is not the exact answer to a problem, Durant engineers modify, combine, or develop entirely new counters to meet the particular requirements of the job. The models shown are a few of the more interesting specials developed in our modern plant. Your counting problems can be readily solved.

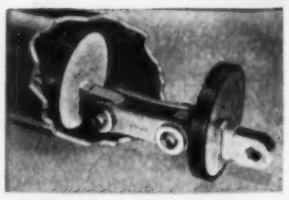
Write for Bulletin

DURANT MANUFACTURING CO.
1922 N. Buffum St. Milwaukee 1, Wis.
122 Orange St. Providence 3, R. I.
Representatives in Principal Cities

PRODUCTIMETERS SINCE 1879 *Count Everything*

▲ For more details circle NED-2759 on enclosed inquiry slip ▲

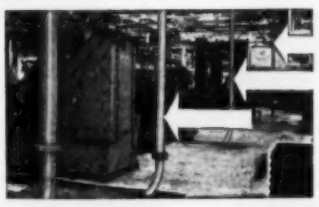
want to show your management some BIG SAVINGS? Install Hapman TUBULAR CONVEYORS



FOR METAL CHIP AND DUST REMOVAL ON 3 TYPES OF INSTALLATIONS:

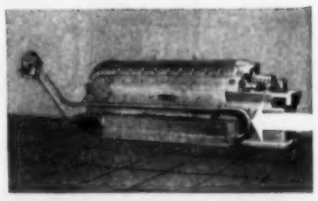
DEPARTMENT OR PLANT-WIDE CHIP-CONVEYING SYSTEMS... 1.

Here's the latest of many complete Hapman chip-handling systems installed in major automotive plants. In all cases, they've *proved their ability* to pay big dividends fast.



AS ORIGINAL COMPONENTS ON NEW MACHINES AND EQUIPMENT... 2.

You can get low-cost, *automatic chip, dust or sludge removal* on new machines of many types by *specifying Hapman Conveyors* as original equipment. We cooperate with the tool builder.



ADDED TO EXISTING MACHINES OF MANY TYPES... 3.

You can also show your Management important, quick-return savings by installing Hapman Conveyors on existing equipment such as these profile milling machines — or on broaching machines, grinders, drills, quench tanks, etc. You can *prove* the savings —

INVESTIGATE NOW — WRITE FOR BULLETIN ND-1152

Hapman CONVEYORS, INC.
DIVISION HAPMAN-DUTTON COMPANY
KALAMAZOO MICHIGAN

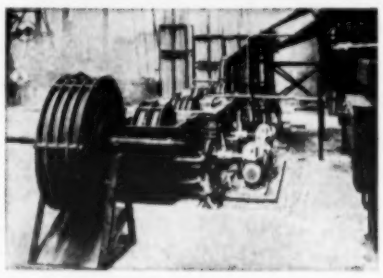
▲ For more details circle NED-2760 on enclosed inquiry slip ▲

AIR FILTER-REGULATOR
for spray gun supply lines

Lines supplying air to spray guns can be equipped with air filters and regulators which remove contaminates ranging from 50 microns down to 1 micron in size. Three improved units incorporate replaceable cartridge filters for moisture control as well as for removing dirt particles. Model 303A uses No. 303 filter with No. 8 regulator. Air gage and ¼-in. outlet cock are included. Model 303B has four-way connection with No. 8 regulator, gage and air cock. Four-way connection permits the addition of a main line gage, outlet or another regulator. Model 303C consists of No. 303 filter plus two No. 8 regulators, gage showing line pressure and cock for use on line pressure. Made by **Sharpe Mfg. Co.**, 1226-A Wall St., Los Angeles 15, Calif.

▲ For more details circle NED-2761 on enclosed inquiry slip ▲

ROTARY COIL PICKLER
handles 2 to 14-in. wide strip at average rate of 3 tons per hour



Users of coiled strip in the 5000 to 18,000-ton per year range can do their own pickling and oiling with considerable saving in labor and operating costs through use of this British-made rotary coil pickling plant. It handles commercial grades of coiled hot rolled strip in widths from 2 to 14 in. and in gages from 0.042 to 0.188-in. Other plants for processing strip up to 24 in. wide, with correspondingly higher tonnage, are available.

Coils are loaded into cages, and uncoiling, scale breaking, loose coiling and pinning are performed with a minimum of hand labor by almost automatic operation. Repeated flexing of the stock during unwinding and rewinding loosens the scale to facilitate removal by the acid. Pickling is completed in 15 to 30 minutes, depending upon acid strength.

After pickling, the cage is transferred to the adjoining rinse water tank where it is rotated and the coil again unwound. The cage then goes to the oil bath for rotation in the opposite direction to rewind the coil. With cage loads of 2500 lb, for strip of 14-in. width, average production is 3 tons per hour. Distributed by **Yoder Co.**, 5501 Walworth Ave., Cleveland 2, O.

▲ For more details circle NED-2762 on enclosed inquiry slip ▲

PREVENTIVE MAINTENANCE
eliminates truck downtime

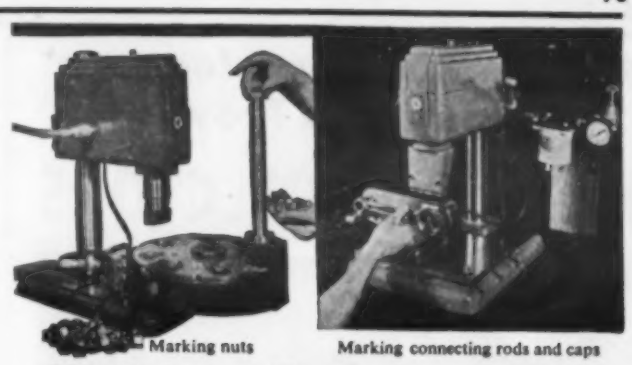
READY-POWER IS BEST FOR PREVENTIVE MAINTENANCE

Tie up a truck because of power failure? Never! Equip your fleet with *interchangeable* Ready-Power gas-electric units and, then, have one extra for the shop. Thus, power units can be rotated for preventive maintenance . . . and your trucks stay *ON THE JOB.*

Your Truck Is No Better Than Its Power!

The READY-POWER Co.
3832 Grand River Ave., Detroit 8, Michigan
Manufacturers of Gas and Diesel Engine-Driven Generators and Air Conditioning Units; Gas and Diesel-Electric Power Units for Industrial Trucks

▲ For more details circle NED-2763 on enclosed inquiry slip ▲



Marking nuts — Marking connecting rods and caps

Mark More Parts per Minute

Whether your problem is the marking of nuts, bolts, connecting rods, axles, pots and pans or the branding of screw drivers, pencils, baseballs or ammunition belts—it will pay you to investigate the Automark. This automatic high-speed pneumatic marking machine needs no special jigs or fixtures for average work. Where holding devices are required several standard automatic fixtures are available. We'll gladly design and build special equipment. Write for Bulletin 712.

NEW Electric Typewriter marks metal name plates in one-fifth the time.

AUTOMARK
Automatic Marking MACHINE
Manufactured Exclusively By

AGENTS
Desirable territories open for responsible representatives. Write giving complete information, lines carried and territory covered.

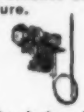
DEFIANCE MACHINE & TOOL COMPANY
1928 South Vandeventer Ave. • St. Louis 10, Mo.

▲ For more details circle NED-2764 on enclosed inquiry slip ▲

ATTENTION!

Special airborne pressure switch for operation between sea level and 50,000 feet.

Unique multiple thermal assembly to safe-guard bearings on a conveyor system by constant surveillance of lube oil temperature.



Originally designed thermostat for heat sealing plastic material used in automatic packaging machine.

Newly developed programming thermostat for precise cyclic control of heat treating oil bath.

Low cost, dependable, accurate thermostat for oxygen tent interior temperature control.

YOUR PRODUCTS ARE BETTER WHEN SPECIFICALLY DESIGNED CONTROLS ARE USED

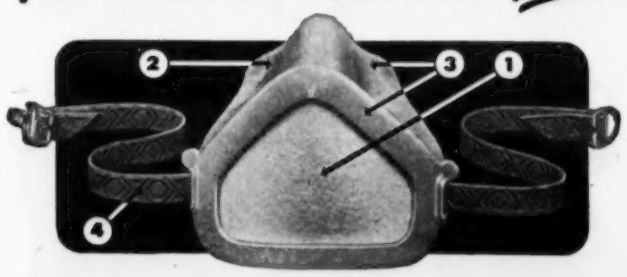
The controls shown were designed especially to improve product performance and thus increase product quality and sales appeal. They were developed by United Electric engineers in cooperation with the manufacturers concerned. United Electric is continually solving unusual control problems within the limits of 30" mercury vacuum to 3000 psi and -150° F to 700° F for inclusion as original equipment by manufacturers of a wide variety of products. Whether you are building 5, 5000 or more units, United would like to help you. Send complete details of your problem today.

UNITED ELECTRIC CONTROLS COMPANY
84 School Street, Watertown, Mass.

STANDARD & SPECIAL THERMOSTATS & PRESSURE SWITCHES

▲ For more details circle NED-2765 on enclosed inquiry slip ▲

4 Reasons why FLEX-A-FOAM (and *only* FLEX-A-FOAM) provides Dust Protection your workers will welcome and *Wear*



1. Pure latex washable filter purifies the air of non-toxic nuisance dusts as small as 1/25000 of an inch — yet it's easier to breathe and talk through than an ordinary pocket handkerchief! Out-wears throw-away type filter as much as 100 to 1.
2. Perfectly contoured for self-adjusting fit to every size and shape of face—designed for wear with spectacles or goggles with perfect comfort.
3. Positive-locking frames of polyethelene plastic, so flexible and tough they're unbreakable in normal usage. Complete mask weighs only 1 ounce. Attractively styled to suit the most discriminating wearer.
4. Defiance non-skid, natural rubber head-band with adjustable hook-and-eye fasteners holds mask firm and comfortably snug without tension or hair-pulling.

FLEX-A-FOAM FILTER MASK

Sample $1.40 postpaid ★ Write for new descriptive folder

THE GOGGLE PARTS COMPANY • CLEVELAND 13, OHIO

▲ For more details circle NED-2766 on enclosed inquiry slip ▲

Refrigeration Manufacturers' Experience Proves

KLIXON PROTECTORS

Reports from refrigeration and air conditioning manufacturers show that electrical equipment of all types have less motor burnouts when these motors are equipped with Klixon protectors.

Mr. N. Arthur Spokesburg, Jr. of Wilson Refrigeration, Incorporated says — "We find that by using Klixon protectors on all condensing units, we have a dependable watchman night and day to protect the condensing unit motor from burning out."

You, too, can prevent motor burnouts in your electrical appliances by using motors with Klixon built-in protectors. However, remember all motors do not come protected . . . so to be sure that your motors are equipped with Klixon protectors, specify on your Purchase Order "Motors with Klixon protectors." The additional cost for the Klixon protector is exceptionally low . . . pays for itself many times over by minimizing motor burnouts, reducing service calls, repairs and replacements.

SPENCER THERMOSTAT
Division of Metals & Controls Corporation
1911 FOREST ST., ATTLEBORO, MASS.

KLIXON

▲ For more details circle **NED-2768** on enclosed inquiry slip ▲

ALLIS-CHALMERS
PUMPS

NEW FILMS AVAILABLE!

Learn More About Theory . . . Application . . . Installation . . . and Maintenance of Centrifugal Pumps!

FREE! Three 12 to 20 minute sound-slide films are now available for showing to maintenance meetings, plant groups, and engineering societies. Information is practical and instructive. Films have been widely praised by educational and industrial groups since their release a few months ago. Easy-to-operate projector can be furnished. First film is "Theory of Centrifugal Pumps"; second, "Application Engineering"; third, "Installation and Maintenance." Call your nearby Allis-Chalmers distributor or district office now to arrange for showing, or write Allis-Chalmers, Milwaukee 1, Wisconsin. A-3809

ALLIS-CHALMERS

▲ For more details circle **NED-2769** on enclosed inquiry slip ▲

Impregnate
PRESSURE CASTINGS
Economically

A positive, low-cost method of impregnating pressure castings to meet the most rigid specifications. Pressure castings impregnated with this equipment have been successfully subjected to severe tests with hot kerosene, hot oil, hot water and other solutions under pressure, with no evidence of porosity remaining.

Meets All Contract Specifications
If your contract calls for casting impregnation, get the facts on this MOGULLIZER packaged plant which utilizes both pressure and vacuum stages.

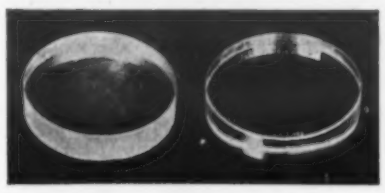
Write today for free literature and recommendations for your casting salvage problems.

NOTE: There are job shops in certain areas who can take care of your contract work. A few territories are still open for job shop installation. Write for set-up plan today.

METALLIZING CO. OF AMERICA
Dept. NED, 3520 W. Carroll Ave., Chicago 24, Ill., Telephone: SAcramento 2-3710

▲ For more details circle **NED-2770** on enclosed inquiry slip ▲

OPTICAL FLAT REHABILITATION
restores transparency, accuracy



Rehabilitation service offered by company restores original transparency and accuracy to worn and scratched optical flats. Savings accrued are up to 40 per cent the price of new optical flats. Photo shows clarity of rehabilitated flat at right compared with that of shop-worn flat at left. For details write **Acme Scientific Co.,** 1457 W. Randolph St., Chicago 7, Ill.

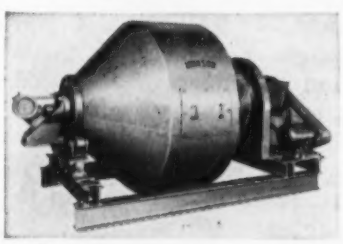
▲ For more details circle **NED-2771** on enclosed inquiry slip ▲

TRUCK & DRAIN RACK
handles and tilts drums for pouring

This combination truck and drain rack for users of solvents, cutting oils and detergents can be loaded by tilting it against drum, sliding steel fingers down to engage top rim, then rocking back to wheeling position. Slight downward push on handles raises wheels and lays rack on floor for draining of drum. Steel tube handles are detachable and one pair will serve any number of trucks. Constructed of heavy angle iron, truck has two 8-in. roller bearing wheels and weighs 90 lb. Made by **Palmer-Shile Co.,** 16015 Fullerton St., Detroit 27, Mich.

▲ For more details circle **NED-2772** on enclosed inquiry slip ▲

ROTARY BATCH MIXER
capacities from 40 to 200 cu ft



Built for overhead, floor or basement installation, this rotary batch mixer is offered in units with capacities ranging from 40 to 200 cu ft. Total capacity depends upon desired size of batch and weight per cubic foot of ingredients. Chemicals, paint ingredients, plastic compounds, etc., are tumbled, turned, and folded by the slowly rotating drum. This principle is supplemented by truncated cone ends which move the stock horizontally. Closely spaced around the inside are odd-shaped lifters which continuously cut out and lift up portions of the ingredients. Made by **Munson Mill Machinery Co.,** 210½ Seward Ave., Utica 1, N. Y.

▲ For more details circle **NED-2773** on enclosed inquiry slip ▲

IMMEDIATE DELIVERY!

40 Stock Sizes.
Tuck end tough kraft.
Stocked for immediate shipments.
Sizes range from 1/2 x 1-7/16 inches square to 2 x 7-1/4 inches.
Special cartons, plain or printed, made to your specifications.

•

Tags in all grades and colors to your order, printed, numbered, or plain.

Campbell BOX AND TAG CO.
Main & Equipment St.
South Bend 23, Indiana

▲ For more details circle **NED-2774** on enclosed inquiry slip ▲

"Custom" Features
IN ECONOMICAL STANDARD STEEL LOCKERS

penco

Penco gives you a *choice* of 337 combinations of *standard* locker types, sizes and design variations—permitting maximum flexibility in locker room planning! Have your own "custom-type" installation at *standard* cost! Locker catalog No. L-100 shows how. Send for it *now!*

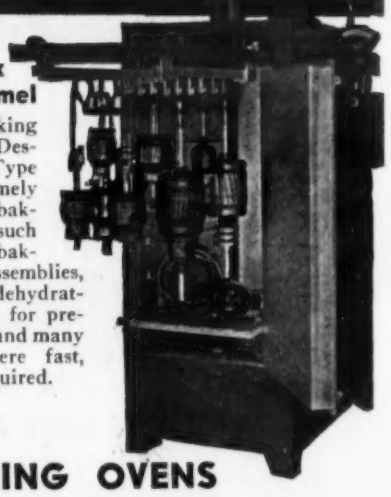
Penco Single Tier Lockers with slope tops and closed bases—boost employee morale, promote locker room cleanliness!

Founded 1869 by L. Lewis Sagendorph

PENN METAL
Corporation of Penna.
82 OREGON AVENUE, PHILADELPHIA 48, PA.

▲ For more details circle **NED-2775** on enclosed inquiry slip ▲

50% FASTER BAKING ON REPAIR JOBS



Ideal for Synthetic Films • Dulux • Lacquer • Enamel

You can often cut baking time up to 50% with Despatch R S Batch Type Ovens. They're extremely adaptable for finish baking of small batches such as armatures . . . for baking paints on grills, assemblies, etc. . . . for drying, dehydrating or core baking . . . for preheating of plastics . . . and many other applications where fast, thorough heating is required.

DESPATCH
R S Batch Type
FINISH BAKING OVENS

They're shipped fully erected and do not require an engineer to set them up. Gas or electric fired, very economical, with working range from 200° to 500° F. Automatic heat control for desired uniform temperature. Sizes from 11 to 90 cu. ft. capacity, all easy to load and unload. When writing for literature, kindly tell us what type of work you have.

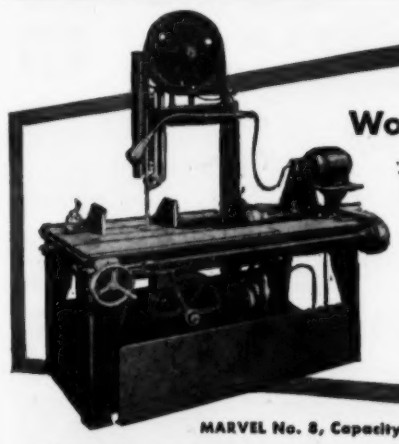
Write for Bulletin on R S Ovens.

DESPATCH OVEN CO. Established in 1902

Manufacturers of ovens for:
Paint Finishing, Dehydrating, Curing, All Industrial and Laboratory Applications

325 DESPATCH BLDG., MINNEAPOLIS 14, MINNESOTA

▲ For more details circle **NED-2776** on enclosed inquiry slip ▲



World's Most Versatile Metal Saw

MARVEL No. 8, Capacity 18" x 18"

There is no other sawing machine like it. The work remains stationary. The blade is guided with a 90° twist and power fed vertically through the work. The saw blade and column can be instantly swung and clamped at any angle to 45° either right or left from vertical for miter cutting.

The number 8 MARVEL saw will handle the smallest, as well as the largest work up to 18" x 18". It will cut-off, trim, miter, notch, and split all bar stock, pipe, structural sections, moulding, tubing, or irregular shapes.

Write for our catalog, containing valuable information, enabling you to select a metal saw best suited to your work.

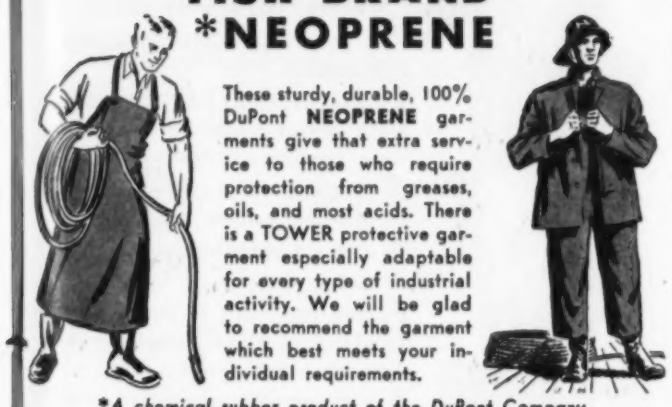
Metal Cutting **MARVEL SAWS**
Better Machines-Better Blades

ARMSTRONG-BLUM MFG. CO.
"The Hack Saw People"
5700 Bloomingdale Ave. Chicago 39, U.S.A.

▲ For more details circle **NED-2777** on enclosed inquiry slip ▲

NOW for complete protection
FROM THE WET • GREASE • OILS • ORDINARY ACIDS

TOWER'S
FISH BRAND
*NEOPRENE



These sturdy, durable, 100% DuPont NEOPRENE garments give that extra service to those who require protection from greases, oils, and most acids. There is a TOWER protective garment especially adaptable for every type of industrial activity. We will be glad to recommend the garment which best meets your individual requirements.

*A chemical rubber product of the DuPont Company

For folder of styles and detailed information write Department SF.

NEOPRENE RUBBER
TOWER'S FISH BRAND
A. J. TOWER CO.
24 SIMMONS ST. BOSTON, MASS.
TOWER'S ARROW BRAND

For more details circle NED-2778 on enclosed inquiry slip

Kleenslot
PREPARATION SCREENS for SIZING • DEWATERING • SCREENING OR FILTERING APPLICATIONS

Cross section above shows how KLEEN-SLOT SCREENS operate on a non-clogging, non-blinding principle.

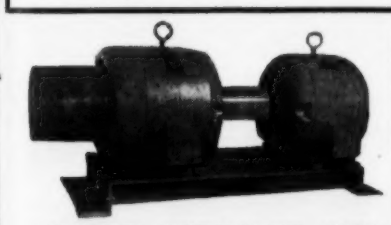
It is not necessary to change your present machine to accomodate our Vibrator Screens. The wedge shape of the screen wire with its non-clogging, non-blinding features permits perfect separation on wet or dry screening. The rigid construction adds considerably to the screen's capability and efficiency. Proven in hundreds of installations.

SEND FOR OUR ILLUSTRATED CATALOG

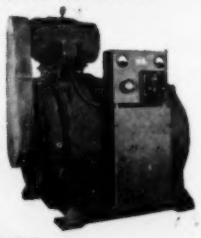
Wedge-Wire CORPORATION
5604 CLARK AVE. CLEVELAND 2, OHIO

For more details circle NED-2779 on enclosed inquiry slip

KATO
ELECTRICAL EQUIPMENT
. . . your assurance of a job well done!



KATO ENGINEERING has been building special electrical equipment and machinery since 1928. Our modern, well equipped plant produces the finest in generators and electrical machinery from the smallest to the largest. We invite your inquiries on special requirements.



MOTOR GENERATOR SETS
D.C. to A.C., A.C. to D.C., 25 cycles to 60 cycles, 60 cycles to 400 cycles. A.C. GENERATORS—15-800 cycles single and three phase. D.C. MOTORS up to 10 H.P. ROTARY CONVERTERS D.C. MOTORS with A.C. take-off.

A. C. GENERATORS
500 Watts to 300 K.W. in one or two bearings, in speeds of 720 to 3600 R.P.M. at 60 cycles. D.C. GENERATORS up to 15 K.W., ROTARY CONVERTERS for changing D.C. to A.C., HIGH FREQUENCY CHANGERS, MOTOR GENERATOR SETS, D. C. MOTORS, A. C. MOTORS, Single Phase, 1-1½-3 H.P.
WRITE TODAY FOR INFORMATION

KATO Engineering Company
1464 FIRST AVENUE MANKATO, MINNESOTA

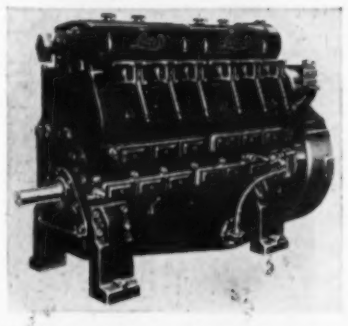
For more details circle NED-2780 on enclosed inquiry slip

COMMUNICATION STATION
has switch for two-way uses

Dustproof and weatherproof, this intercommunication station can be used in factory, warehouse and office. It has a 4 x 6 x 4½ in. aluminum cabinet, 4-in. Cletron speaker with a 45-ohm aluminum voice coil and a switch which permits two-way communication. Made by **Cleveland Electronics, Inc.**, 6639 Euclid Ave., Cleveland 3, O.

For more details circle NED-2781 on enclosed inquiry slip

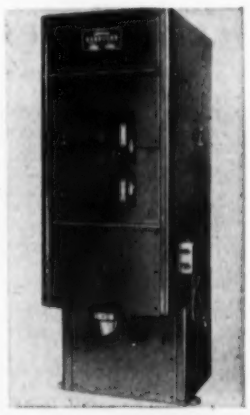
DIESEL ENGINES
models with 8 to 54 hp



Line of Freedom Range diesel engines, includes models with 1, 2, 3, 4 and 6 cylinders, in a range from 8 to 54 hp. Engines are made in England by R. A. Lister & Co., Ltd., and are shipped to this country to be equipped with American accessories, such as starters generators, radiators, clutches and marine gears. Thus service and replacement parts problem is simplified. Distributed by **National Supply Co.**, Superior Engine Div., 1403 Sheridan Ave., Springfield 99, O.

For more details circle NED-2782 on enclosed inquiry slip

WEIGHING MACHINE
electronic unit is automatic

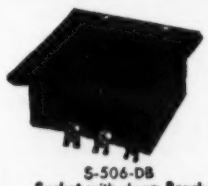


Dial-A-Matic is name of electronically controlled automatic weighing machine which has dial controls for sensitive adjustment of weights in steps of 1/64-oz, weighing speed and control of a bulk or preliminary charge to the weighing bucket. Entire unit is inclosed in a metal housing. Machine can be set for either automatic or manual control of dumping charges after weight is made. Jeweled agate bearings and hardened hollow ground knife edges make possible a very sensitive weighing element. Available for bench or floor type mountings are models No. 216 with a range of 1½ to 16 oz and No. 448 with range of 4 oz to 3 lb. Made by **Hannconn Machine Co.**, Dept. N, 180 Lafayette St., New York 13, N. Y.

For more details circle NED-2783 on enclosed inquiry slip

For HEAVY DUTY WORK!
Severest Electrical Services

P-506-CE—Plug with Cap



S-506-DB
Socket with deep Bracket

JONES PLUGS & SOCKETS
500 SERIES
Proven Quality!

For 5,000 Volts, 25 Amperes per Contact Alterable by circuit Characteristics.

Socket contacts of phosphor bronze, knife-switch type, cadmium plated. Plug contacts hard brass, cadmium plated. Made in 2, 4, 6, 8, 10, and 12 contacts. Plugs and sockets polarized. Long leakage path from terminal, and terminal to ground. Caps and brackets, steel parkerized (rust-proofed). Plug and socket blocks interchangeable in caps and brackets. Terminal connections most accessible. Cap insulated with canvas bakelite.

Write for Jones BULLETIN 500 for full details on line.

Jones
HOWARD B. JONES DIVISION
CINCH MANUFACTURING CORPORATION
CHICAGO 24, ILLINOIS
SUBSIDIARY OF UNITED-CARR FASTENER CORP.

For more details circle NED-2784 on enclosed inquiry slip

MYSTIK® BRAND TAPES
SELF-STIK

14 Colors!

To identify . . . code . . . decorate . . . trim

Self-Stik Mystik® Brand Cloth Waterproof Tapes are available in 14 colors . . . *white, black, red, green, blue, yellow, brown, wine, pink, tan, gray, light blue, light green* and *olive drab*. No other tape offers this range of colors to multiply the many uses in your operations. Takes the place of permanent painted stripes, decorations, on many products. Makes decorative hinges, bindings. Write for information and free samples. Mystik Adhesive Products, 2657 North Kildare Avenue, Chicago 39.

© Mystik Adhesive Products, 1952 Trademark Mystik Registered.

For more details circle NED-2785 on enclosed inquiry slip

it's easy riveting

Southco Drive Rivets provide better fastenings and lower fastener costs. Just tap in the pin. It's as easy as that, and fast. A one man job—no bucking-up. An ordinary hammer is the only tool. The "pull-up" is perfect. There's no finishing, grinding, trimming. Southco Rivets are tough, hold securely, can't work loose even under severe vibration.

Wherever rivets are used, for securing heavy truck panels, or delicate instrument assemblies, metal to metal or metal to wood, use Southco Drive Rivets for speed, for low cost, for secure fastenings. Ask for complete data. Southco Div., South Chester Corp., 1413 Finance Bldg., Philadelphia 2, Pa.

Important for military contractors! Prompt deliveries now possible.

SOUTHCO FASTENERS

PAWL, SCREW AND SPRING • DRIVE RIVETS
ANCHOR NUTS • ENGINEERED SPECIALTIES
OFFICES IN PRINCIPAL CITIES

WHEREVER TWO OR MORE PARTS ARE FASTENED TOGETHER, STANDARD AND SPECIAL DESIGNS FOR IMPROVED PERFORMANCE AND LOWER PRODUCTION COSTS

For more details circle NED-2786 on enclosed inquiry slip

SHIPPING COSTS GO DOWN

CORROSION LOSSES STOP

WITH MARVELLUM VPI® WRAP

● Time consuming slushing, expensive wraps and seals, messy and costly cleaning are no longer necessary if you use Marvellum VPI. Developed for Government shipments during the war, VPI is now available to all. It's the ideal wrap for shipping Ferrous metal parts. A special coating on the paper vaporizes and forms an invisible protective film around the item wrapped, preventing corrosion.

It is easy to use — just fold the paper over the part. Tight seals, rust-preventive oils, puncture-proof wrappings or direct contact with the chemical are not necessary. Yet Marvellum VPI protects against rust for years. Open the wrapping and there's the part as bright and clean as when it was made.

Marvellum VPI is available in sheets, envelopes or special containers. Marvellum has complete facilities under one roof for designing, coating and producing VPI Wraps. Also makers of a wide range of other Barrier Materials, Government Approved, for product protection.

Write for FREE Booklet and name of nearest distributor.

The Marvellum Company

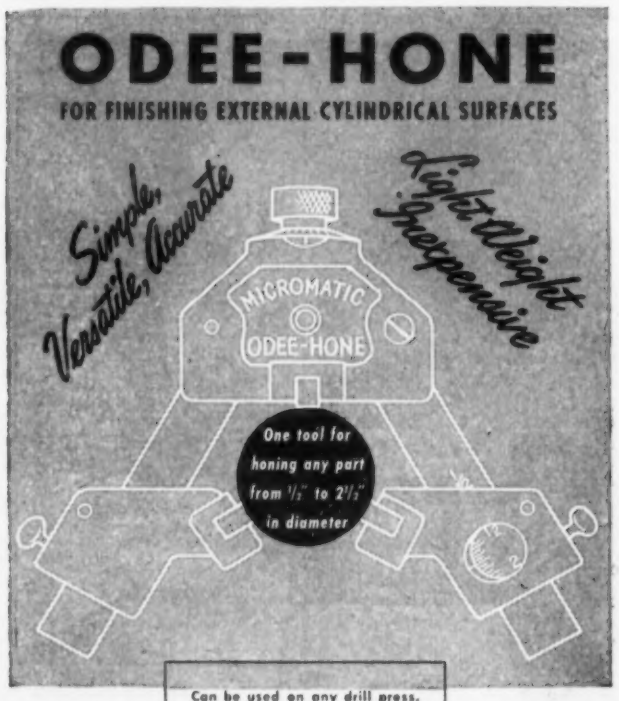
30 APPLETON STREET HOLYOKE, MASS.

First and Foremost in VPI Protection

For more details circle NED-2787 on enclosed inquiry slip

ODEE-HONE

FOR FINISHING EXTERNAL CYLINDRICAL SURFACES



Can be used on any drill press, lathe or electric drill.

Generates round, straight surfaces with any desired surface finish.

For complete information write or call

MICROMATIC HONE CORPORATION

8100 SCHOOLCRAFT • • • DETROIT 4, MICHIGAN

For more details circle NED-2788 on enclosed inquiry slip

DEMING

SUMP PUMPS

● These new Deming Sump Pumps are designed for trouble-free service, easy maintenance and long life.

Features include heavy-duty construction, close tolerance dowel-ring fits from motor to impeller, positive alignment of all rotating and guide bearing parts, column connections flanged and bolted for easy maintenance.

Pumps can be furnished in cast iron, bronze, Monel and stainless steel. Sizes range from 1 to 10 inch discharge with capacities from 10 to 3000 G.P.M., and heads up to 140 ft.

Complete details, selection tables, and accessories are illustrated and explained in new Bulletin No. 4600-A. Write for a copy.

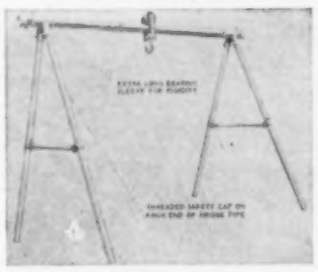
THE DEMING COMPANY

520 Broadway • Salem, Ohio

For more details circle NED-2789 on enclosed inquiry slip

PORTABLE GANTRY CRANE

knock-down type has 2-ton capacity

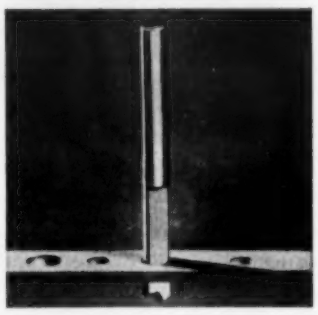


Two men can set up or dismantle this portable, knock-down type, 4000-lb capacity gantry crane in 10 minutes. Unit has 9-ft overall length and is available in heights which would locate the trolley-type hook 6 ft 2 in., 7 ft 1 in., 8 ft and 8 ft 11 in. from floor. Slip-on boots with 4-in. diameter casters are available for moving around on the job. With legs anchor-bolted to low platform, crane can be converted to permanent jib crane for loading trucks. Made by **Wise Engineering Co.**, 74 Chapel St., Newark 5, N. J.

For more details circle NED-2790 on enclosed inquiry slip

CARBIDE DRILLS

for drilling hardened steel



Stock of standard sizes of Super Hard carbide drills for drilling hardened steel has been increased to include 1/8 to 1/2-in. sizes in the standard round shank style and 10 sizes, 5/16 to 3/4-in., in the hex shank style. Former have solid carbide ends, while latter feature carbide tips. Long carbide end tends to dissipate heat developed at cutting end as it approaches point of braze and lessens danger of braze failure. Made by **Super Tool Co.**, 21640 Hoover Rd., Detroit 13, Mich.

For more details circle NED-2791 on enclosed inquiry slip

PLASTIC TARPAULINS

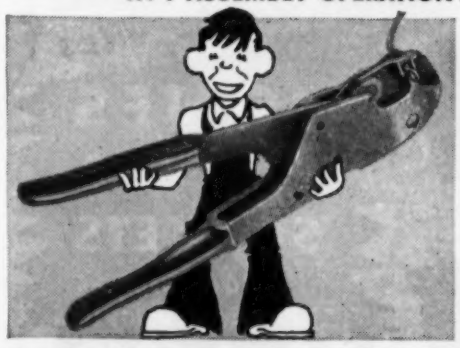
waterproof and easy to handle

C-Line polyethylene industrial tarpaulins, pliable in all temperature ranges, are light in weight, water and mildewproof, transparent and tear resistant. They are easily washed and dried and do not absorb paint or liquids. Use can be for equipment protection during painting, scraping or plastering or for such outside uses as covering lumber, block, cement and other materials. Made by **Canton Containers, Inc.**, Plastics Div., 2011 Ninth St. S.E., Canton 2, O.

For more details circle NED-2792 on enclosed inquiry slip

This Combination Gives You 3 PLUS-Performance Features

IN 1 ASSEMBLY OPERATION . . .



THERE'S A T&B ENGINEERED PRODUCT for every wiring job in the complete T & B line of fittings for all conductors and raceways

Just close the jaws of these new SHURE STAKE Tools* on T & B Self-Insulated Sta-Kon Terminals†. In a single operation, you get: (1) an electrically sound, mechanically strong joint; (2) firm gripping of wire insulation; (3) terminal insulation that prevents shorts—without an extra insulating operation.

Tool handles are color-coded to conform to color-coding of terminal insulation. Three designs meet all assembly requirements: WT-143 for RA and RB terminals; WT-144 for RC; WT-141, adjustable for all three sizes. Write for details.

Engineered Right—Distributed Right. These new SHURE STAKE Tools are typical of all T & B products designed for outstanding performance at lowest cost. Furnished 100% through T & B distributors under the T & B Plan.

*Patents Pending †Patented

THE THOMAS & BETTS CO.

INCORPORATED

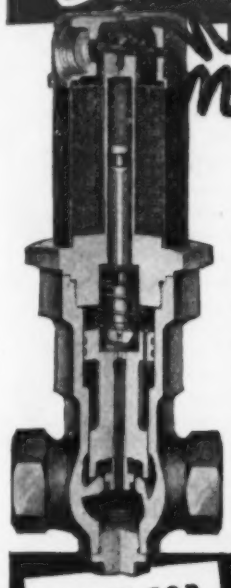
24 BUTLER STREET, ELIZABETH 1, NEW JERSEY

Manufacturers of Electrical Fittings since 1898

Originators of self-insulated solderless terminals in 1935

For more details circle NED-2793 on enclosed inquiry slip

ATKOMATIC Solenoid Valves



FOR AUTOMATIC OR REMOTE CONTROL

1. DAMAGING WATER HAMMER ELIMINATED.
2. ALL INTERNAL PARTS ACCESSIBLE without removing valve from line or breaking electrical connection.
3. PACKLESS—sealed operating chamber. No outside moving parts.
4. ONLY 3 MOVING PARTS, and no linkage of parts.
5. LINE PRESSURE IS MAIN ACTUATING FORCE—operates with slight pressure drop across seat.
6. OPERATING PRESSURES TO 3000 PSI.

ALL SIZES 1/4" to 3"

WRITE FOR LITERATURE

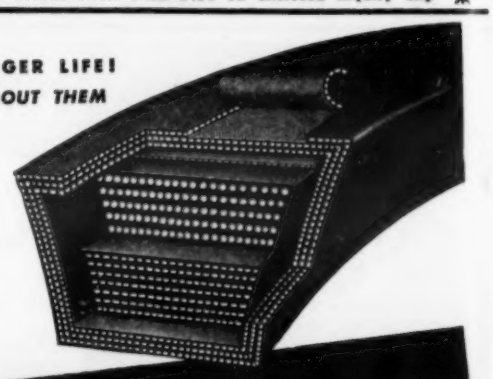
Atkomatic Valve Co.

545 WEST ABBOTT ST.

INDIANAPOLIS 25, INDIANA

For more details circle NED-2794 on enclosed inquiry slip

FOR LONGER LIFE! —ASK ABOUT THEM



DODGE SEALED-LIFE V-BELTS

● The life is sealed in! Special cover protects tension members — insures *longer belt life*. Dodge Sealed-Life V-Belts are factory matched to TAPER-LOCK Sheaves for best performance. Stocked by Dodge Distributors. Write us for complete details.

DODGE MANUFACTURING CORPORATION, 2100 Union St., Mishawaka, Ind.

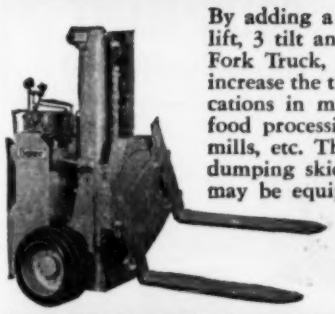
DODGE of Mishawaka, Ind.

FIRST IN POWER TRANSMISSION MACHINERY

For more details circle NED-2795 on enclosed inquiry slip

BAKER 360° REVOLVING HEAD

—greatly increases FORK TRUCK utility



By adding a fourth motion (1 travel, 2 lift, 3 tilt and 4 ROTATION) to a Baker Fork Truck, this attachment can greatly increase the truck's utility on many applications in metal-working, chemical or food processing plants, foundries, paper mills, etc. The most common use is for dumping skid boxes—but rotating heads may be equipped with devices such as clamps for handling drums, paper rolls and other cylindrical objects. Operation is hydraulic, with a single control lever starting, stopping, selecting direction and speed of rotation.

A large electrical manufacturer saves $10,000 per year on scrap disposal operations with this Baker Revolving Head.

Write for Bulletin 1350-7

THE BAKER-RAULANG COMPANY

1245 WEST 80th STREET, CLEVELAND, OHIO

Baker INDUSTRIAL TRUCKS

For more details circle NED-2796 on enclosed inquiry slip

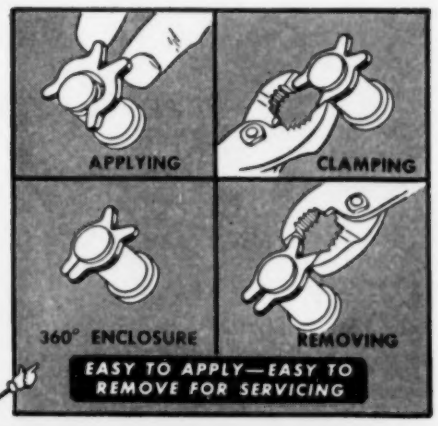
COMPARE THE PRICE.... AND PERFORMANCE.....
and you'll rely on us for any type of multiple spindle fixed center, adjustable or individual lead screw tapping head.

US HEADS
SINCE 1915
UNITED STATES DRILL HEAD CO.
CINCINNATI 4, OHIO

▲ For more details circle NED-2797 on enclosed inquiry slip ▲

● If you have a design problem involving fasteners, make STANDARD X-WASHERS the profitable solution. The split-second locking action of STANDARD X-WASHERS will slash production time and costs.

Remember, no *special* tools are needed. A pair of pliers presses STANDARD X-WASHERS to a positive 360° enclosure and removes them just as easily when servicing is necessary. Fit them into your designs. Their applications are numerous.



FREDDIE FASTENER TALKIN': We can provide grooved pins for all sizes of STANDARD X-WASHERS... parallel or headed type pins made to specifications. Send print... or write for X-WASHER catalog and order by number. You'll receive a prompt quotation.

STANDARD Locknut and Lockwasher, Inc.
510 N. CAPITOL AVE. • INDIANAPOLIS 4, IND.

▲ For more details circle NED-2798 on enclosed inquiry slip ▲

COMPUTER-TYPEWRITER integrates two business machines

By integrating two commonly used business machines, this electronic Computyper makes possible the automatic printing of the results of a calculator that is used for addition, subtraction, multiplication and division. System combines a Friden calculator with an IBM electric typewriter. According to tests, calculating and tabulating can be done four times faster than with previous methods and with the elimination of the human error in transposition of figures. Developed by **Benson-Lehner Corp.**, 2340 Sawtele Blvd., Los Angeles 64, Calif.

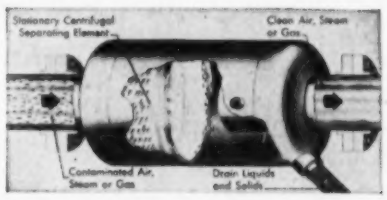
▲ For more details circle NED-2799 on enclosed inquiry slip ▲

SAFETY DRESS SHOES feature foam latex innersoles

Air-cushion foam latex innersoles are improved feature of three smartly styled steel-toe dress safety shoes for executives and foremen. Innersole is also included in several types of standard work shoes. Foam construction consists of thousands of tiny air cells which 'breathe' to provide resilient, protective comfort under the foot. Shoes are stocked in varied range of sizes and widths. Made by **Safety First Shoe Co.**, Dept. N34, Holliston 5, Mass.

▲ For more details circle NED-2800 on enclosed inquiry slip ▲

VAPOR LINE PURIFIER removes dirt, oil, moisture and guck



Virtually 100 per cent of all dirt, oil, moisture and guck are removed from steam, air, gas and vapor lines by improved type Hi-eF purifier which performs automatically and without moving parts or baffle plates. Centrifugal action throws solids and water outward to walls of purifier, and they are ejected out the drain. Drop in pressure is negligible. Purifier is made in all standard sizes up to 24 in. for pressures up to 600 psig. Except for low pressure types, all units meet ASME Code for unfired pressure vessels. Made by **V. D. Anderson Co.**, Purifier Div., 1932 W. 96th St., Cleveland 2, O.

▲ For more details circle NED-2801 on enclosed inquiry slip ▲

SPRAY NOZZLES... two guides to proper selection!

No matter what you may face in the way of a spraying problem, it can be solved quickly and at low cost with Spraying Systems Spray Nozzles. Two fact-packed catalogs—No. 22, General Industrial Spray Nozzles, and No. 23, Pneumatic Atomizing Nozzles—are yours for the asking. They show you all the various types of spray nozzles available . . . explain design and construction . . . and outline spray characteristics such as atomization, impact of spray and capacity. Write for your copies today.

SPRAYING SYSTEMS CO.
ENGINEERS AND MANUFACTURERS
3211 RANDOLPH STREET BELLWOOD, ILLINOIS

WRITE FOR CATALOGS NO. 22 AND NO. 23

▲ For more details circle NED-2802 on enclosed inquiry slip ▲

SALIENT FEATURES OF HAR-BAR BARRIERS

1. High enough to stop your car.
2. Low enough to clear your bumper guards.
3. Barrier is above ground — no drainage problem.
4. Barrier is above ground — no rotting of wood.
5. Automatically spaces your cars.
6. Follows contour of your ground.
7. Easily installed — just line up and drive the anchor pins.
8. Easily moved — just pull the anchor pins.
9. Easy to clean under.
10. Easy to maintain.
11. Installed on any kind of surface — black top, cement, macadam, gravel or cinders.
12. It really dresses up your parking lot.
13. You always stop against your tire—no shock.

Send us a plot plan of your parking lot—we do the engineering free.

HARRIS-BARRIER INC. 5407 N. PENNSYLVANIA STREET INDIANAPOLIS 5 - INDIANA

▲ For more details circle NED-2803 on enclosed inquiry slip ▲

▲ For more details circle NED-2804 on enclosed inquiry slip ▲

Produce controlled finishes with none of secondary burrs resulting from ordinary countersinks. New type flutes of this job-proven high speed steel countersink are equally efficient on chamfering or burring, valve-seat-finishing, center reaming. You'll be amazed by smooth, even finish even on square holes.

Pioneers in Job-engineered Rotary Tools

M. A. FORD MFG. CO., INC.
721 West River St., Davenport, Iowa
Please send details and prices on the Ford "Quad" countersink.
NAME: _____
COMPANY: _____
ADDRESS: _____

▲ For more details circle NED-2805 on enclosed inquiry slip ▲

Another Arm-The NO. 40
CIRCLE TEMPLATE

$1.00 AT YOUR LOCAL DEALER

.030 MATTE FINISH MATHEMATICAL QUALITY DOUBLE-CURED PLASTIC. ALL HOLES SMOOTH-MILLED TO ENGRAVING MACHINE ACCURACY.

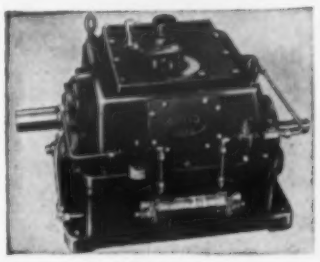
ONE OF MORE THAN 30 RAPIDESIGN TIME-SAVER TEMPLATES—ALL OF WHICH ARE BETTER MADE, MORE USEFUL AND LESSER PRICED.

CATALOGUE NO. 49 AVAILABLE UPON REQUEST

RAPIDESIGN INC.
P. O. BOX 592 GLENDALE, CALIF.

For more details circle NED-2806 on enclosed inquiry slip

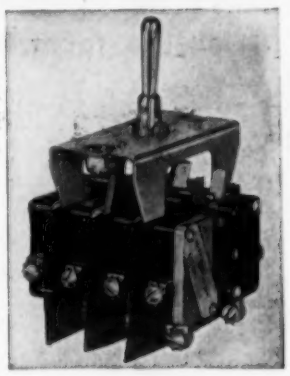
SPEED CHANGING GEARED DRIVES
for speed reducing or increasing



Using herringbone gears throughout, these standardized geared drives provide definite ratios of speed reduction, speed increasing, or a combination of both. Units are designed and built to eliminate the cost and delivery delay of specially built drives. They are available in two, three and four speed combinations, in a wide range of ratios and horsepowers. No belts are used in their construction. Made by **Philadelphia Gear Works, Inc.**, 3600 G St., Philadelphia 34, Pa.

For more details circle NED-2808 on enclosed inquiry slip

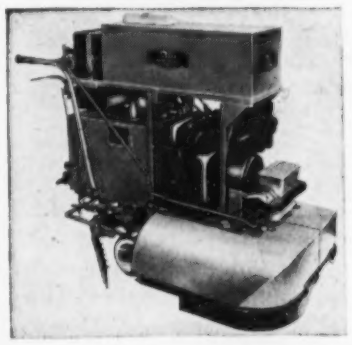
SWITCH ASSEMBLIES
toggle type for multiple circuits



Toggle switch assemblies, for multiple circuit control, are available with one to ten double-throw switching elements, all operated by single lever. Assemblies meet vibration resistant requirements for aircraft. The lever can be detented in the center, and either or both extreme positions, or can be self-returning to the center. Each switching element is Underwriters' listed at 10 amp up to 250 v ac and will handle 30 v dc inductive loads at 10 amp at sea level and 6 amp at 50,000 ft altitudes. Made by **Minneapolis-Honeywell Regulator Co.**, Micro Switch Div., 205 S. Chicago Ave., Freeport, Ill.

For more details circle NED-2809 on enclosed inquiry slip

FLOOR SCRUBBER-VACUUM
designed for large area operation



Application of cleanser, scrubbing and damp drying the floor are all performed in one operation by the model 218G Scrubber-Vac machine. It has a self-starting gasoline engine which can be equipped with an Oxy-Catalyst monoxide eliminator, and two 18-in. brushes to give a 36-in. wide scrubbing surface. Designed for production scrubbing up to 16,000 sq ft per hour, it has a maximum forward speed of 136 fpm. Engine is a two-cylinder, four-cycle, 9.4-hp model with button starting. Also incorporated are a fingertip clutch and two-stage turbine fan which provides a vacuum that removes grease and sludge loosened from the floor. Made by **Finnell System, Inc.**, 500 East St., Elkhart, Ind.

For more details circle NED-2810 on enclosed inquiry slip

HYDRAULIC GOVERNOR
for all type Diesel engines adjusts to temperature changes

This hydraulic governor which applies to all Diesel engines adjusts automatically for temperature changes through linkage arrangement using expansion differentials, without being affected by atmospheric pressures. Finned aluminum outer case dissipates heat rapidly. Two needle valves adjust recovery time on acceleration and deceleration, and by-pass valve assures sensitivity.

An auxiliary valve, operated manually, by solenoid or other means, adjusts servo-piston speed, acts as by-pass to limit load and shuts down engine. For variable speed applications, special device adjusts time lapses from 0 to 1 minute, or from no-load idling to full-load-full-speed. External speed adjustment is not needed for Diesel electric drives. Made by **Dale Hydraulic Controls, Inc.**, 700 South St., Rockford, Ill.

For more details circle NED-2811 on enclosed inquiry slip

How to Solidly Anchor
LOOSE BOLTS

Bolts with worn threads—undersize bolts in oversize holes—bolts passing through thin walls—bolts holding ill-fitting cast flanges—all can be tightened firmly with quick-setting Smooth-On No. 1 Iron Cement. Use it, too, to lock nuts tight, and to cover and protect countersunk bolt heads in metal or wood. These repairs stay tight because Smooth-On expands slightly as it hardens. Buy Smooth-On No. 1 in 7 oz., 1 lb., 5 lb., 20 lb., or 100 lb. size and keep it handy. If your supply house hasn't Smooth-On, write us.

FREE REPAIR HANDBOOK

40 Pages filled with time-saving, money-saving repairs on plant, shop and home equipment made with No. 1 and other Smooth-On Cements. Drop us a line for YOUR free copy.

SMOOTH-ON MFG. CO., Dept. 10
570 Communipaw Ave., Jersey City 4, N. J.

Do it with SMOOTH-ON
THE IRON REPAIR CEMENT OF MANY USES

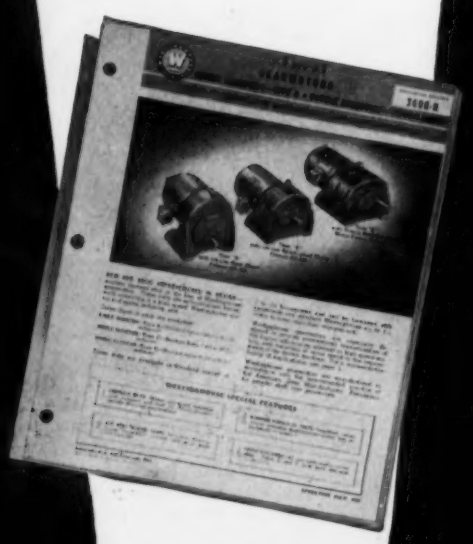
For more details circle NED-2812 on enclosed inquiry slip

Get your free copy of this Gearmotor booklet

Here are eight pages packed full of factual information on Life-Line Gearmotors. Application data, gearing specifications, motor specifications, methods of mounting, control selection and special features are included in this ready reference manual.

A free copy is waiting for you. Just send a note asking for a copy of DB-3600 to Westinghouse Electric Corp., P. O. Box 868, Pittsburgh 30, Pennsylvania. Or, call your Westinghouse representative and ask him for your copy.

J-07317



YOU CAN BE SURE... IF IT'S Westinghouse
Life-Line GEARMOTORS

For more details circle NED-2807 on enclosed inquiry slip

7 CHECKS FOR A GOOD GEARMOTOR

1 Split Housing . . . Assures easy access to working parts without disturbing alignment or draining oil.

2 Integral Bearing Supports . . . Antifriction bearings mounted direct in rigid housing, not in end brackets, mean permanent alignment of gear shafts—maximum overhung load capacity.

3 Precision Helical Gears . . . Hobbed and shaved after heat-treatment mean quieter, smoother operation—maximum load-carrying capacity.

4 Taper-Hardened Gears . . . Tapered hardness from surface to core assures extremely tough, wear-resisting teeth—means longer life.

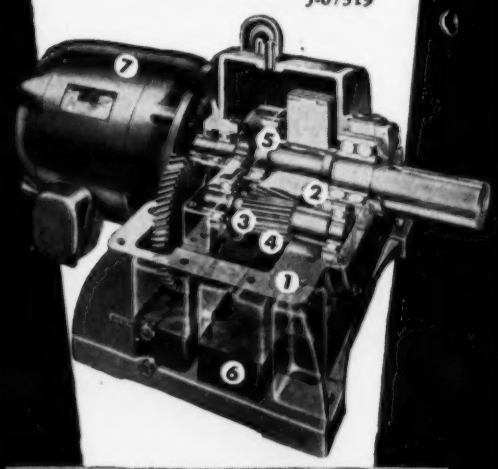
5 Integral Motor Design . . . Drive pinion mounted on motor shaft—no coupling to align and service—means fewer wearing parts, minimum maintenance.

6 Engineered Lubrication . . . Circulating splash system, protected-type breather, positive mechanical oil seals—mean thorough, leakproof lubrication.

7 Life-Line Motor . . . Pace-setting, industry-proved, compact steel motor with sealed-for-life bearings—means maximum motor dependability.

To get all these features, plus undivided responsibility for motors and gears, specify Westinghouse Life-Line Gearmotors. For more information, call in your Westinghouse representative. Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Penna.

J-07319



YOU CAN BE SURE... IF IT'S Westinghouse
Life-Line GEARMOTORS

For more details circle NED-2813 on enclosed inquiry slip

Only the MAXWELL E-Z Set boring tools feature high speed operation, micrometer-like adjustment to 0.0001-inch and maximum boring range.

Interchangeable shanks permit E-Z Set boring tools to be used in turret lathe, jig-bore, milling machine, boring mill, automatic or other machine tools. Because they can be adjusted for cut in only one-tenth the time formerly required by similar tools, these Maxwell-made tools can meet high-speed production on schedules.

E-Z Set boring tools are available in three models having maximum boring bar capacities of ½, 1 and 1½ inches and covering a boring range of from ⅜ to 20 inches.

Write today for catalog.

THE MAXWELL COMPANY
380 Broadway • Bedford, Ohio

For more details circle NED-2814 on enclosed inquiry slip

Just because that bathing suit is proper at the beach, she shouldn't assume it's proper for the classroom, too!

And just because one bearing is best lubricated by one particular grade of oil, you shouldn't assume that the same oil is best for *all* bearings on that machine. In many cases it isn't.

OIL CUPS permit you to lubricate each bearing with the oil best suited to that bearing—thus prolonging bearing life, reducing maintenance costs, cutting down-time, boosting production. And oil cups fortunately *cost very little*.

Gits oil cups have been the standard for industry for more than 40 years. Gits Bros. has the largest selection of oil cups available anywhere. Call on Gits Bros. for a prompt, efficient solution to your lubrication problems.

Write for free Catalog No. 60-A

GITS BROS. MFG. CO.
1833 S. Kilbourn Ave. • Chicago 23, Ill.

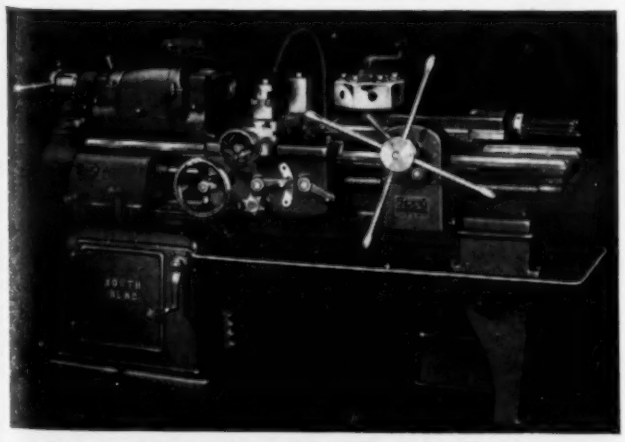
For more details circle NED-2815 on enclosed inquiry slip

SOUTH BEND 2-H TURRET LATHE

for Fast, Precision Machining

Its speed, accuracy and ease of handling enables the 2-H Precision Turret Lathe to lower production costs of precision parts. It is especially suited for second operations. Write for Catalog 67-F.

1" Collet Capacity . . . 1-3/8" Spindle Bore . . . 16-1/4" Swing . . . 28-1/4" Turret to Spindle . . . 12 Spindle Speeds . . . 48 Thread Cutting and Carriage Power Longitudinal and Cross-feeds . . . 96 Turret Power Feeds



MODEL 2-H PRECISION TURRET LATHE—equipped with two-speed (2 h.p.-1 h.p.—1800-900 r.p.m.), 3-phase, A.C. motor; handlever collet attachment; and coolant pump assembly.

SOUTH BEND LATHE WORKS
Building Better Tools Since 1906 • South Bend 22, Indiana

For more details circle NED-2816 on enclosed inquiry slip

New Processes and Materials

PLASTIC TARPAULINS are waterproof and crackproof

Machinery, trucks, stored materials and other items can be protected by tarpaulins made of navy blue 10-gage DuPont Vinylite. They are waterproof, crackproof, peelproof, resistant to abrasion, motor oils and most chemicals and do not warp or shrink after exposure to wide temperature fluctuations and weathering. Nonflammable tarpaulins have a tensile strength of 200 lb and are made in sizes from 9 x 8 to 22½ x 22½ ft. Grommets are inserted at 3-ft intervals. Available from **American Agency**, Dept. 22, 799 Broadway, New York 3, N. Y.

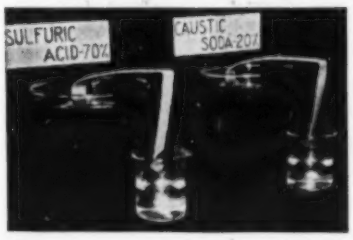
For more details circle NED-2817 on enclosed inquiry slip

PROJECTION PAPER for making positive paper prints

Kodagraph projection positive paper, which requires a special developer, is available for uses in a process camera to make direct-reduction positives from large drawings. It can also be used with an enlarger to produce positive prints from positive microfilm records. Prints are as legible and easier to handle than the typical large bulky drawing. Made by **Eastman Kodak Co.**, Dept. E, 343 State St., Rochester 4, N. Y.

For more details circle NED-2818 on enclosed inquiry slip

CHEMICAL RESISTANT MATS offered in various thicknesses



Resistant to attack by alkalies, acids, fire, fungus and insects, Dynel mats are available in specified thicknesses from 1/100 to ¼-in. Apparent densities range from 6 to 18 lb per cubic foot. Material which can be readily wetted without showing dimensional change, is available in roll form up to 72 in. wide in sheets 36 x 36 in. It is thermoplastic and can be pressed into higher density sheets, surface formed or molded to shape. Mats are resilient and can be used for lining, padding or cushioning applications in marine and corrosive chemical atmospheres, and as filter media. Made by **Felters Co.**, Dept. NP, 210 South St., Boston 11, Mass.

For more details circle NED-2819 on enclosed inquiry slip

For more details circle NED-2820 on enclosed inquiry slip

...now even better with 79E BOND

Buy Chicago Mounted Wheels—bonded with 79E Bond—and you'll never use any other!

79E—a tough new bond exclusive with Chicago Wheel—is the sensation of the industry . . . it does a BETTER grinding, burring, and finishing job FASTER. A size and shape for every use. Deliveries are excellent—Order today.

CHICAGO WHEEL & Mfg. Co.
Dept. NED • 1101 West Monroe Street, Chicago 7

For more details circle NED-2821 on enclosed inquiry slip

NEW FRACTIONAL H.P. STARTER HAS ALL THE FEATURES!

- Quick-make, quick-break contact mechanism
- Single or double pole construction
- Double-break contacts of fine silver
- Modern styling
- Straight-thru wiring with convenient terminals—generous wire space
- Dependable melting alloy type overload protection—trip-free
- Definite trip indication
- Interchangeable overload relay units accessible from the front
- Open type starter can be used with standard switch box and flushplate

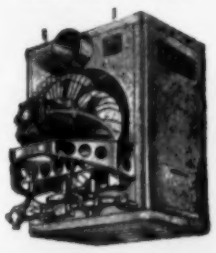
RATINGS: *Double pole: 1 H.P., 115—230 volts A.C. or D.C. Single pole: 1 H.P., 115—230 volts A.C. and ½ H.P., 115—230 volts D.C.*

Write for Bulletin 2510A. Address Square D Company, 4041 N. Richards St., Milwaukee 12, Wisconsin.
ASK YOUR ELECTRICAL DISTRIBUTOR FOR SQUARE D PRODUCTS

SQUARE D COMPANY

For more details circle NED-2822 on enclosed inquiry slip

FLOOR AND SUSPENDED TYPES



SPOT HEAT WHERE MEN WORK . . . with MECHANIZED GAS UNIT HEATING

Install REZNOR WORLD'S LARGEST-SELLING *Automatic* GAS UNIT HEATER

Reznor unit heaters need only gas and electric supply plus flue exhaust arrangement for complete automatic operation. You can provide heat in winter and circulated air in summer to give employees the comfort they need to produce more efficiently. Because each unit produces and distributes heat where and when you want it, and installs so easily, you have flexibility to follow shop rearrangement with low-cost heating arrangement. For modern heating of new construction, expansion or remodeling specify Reznor unit heating. Reznors install economically in any size area.

REZNOR MANUFACTURING CO.
14 UNION ST. • MERCER, PENNA.
Send me 20-page catalog in full color

Name_____
Firm_____
Address_____
City_____ Zone____ State____

For more details circle NED-2823 on enclosed inquiry slip

...Increase Production...Lower Operating Costs!

with finger tip control

LOVEJOY variable SPEED PULLEYS

A mere turn of the hand is all that is required for instant speed correction on your machinery. Changes in production schedules, operator speed adjustment or specification variations are accomplished without loss of time or labor. Benefits of LOVEJOY finger-tip-control pulleys are reflected in an *improved* product—manufactured at a *lower* cost. Sizes from fractional to 8 hp. Ratios to 3 to 1.

Get full information on this complete line of economical variable-speed pulleys. Write today for fully illustrated catalog and engineering manual.

LOVEJOY FLEXIBLE COUPLING CO.
5003 W. Lake Street, Chicago 44, Ill.
Also Mfrs. Lovejoy Universal Joints and Lovejoy Flexible Couplings

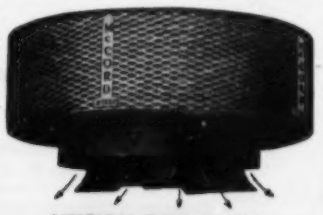
For more details circle NED-2824 on enclosed inquiry slip

Better Heat Distribution WITH McCORD Unit Heaters

More Heat . . . Better Distribution

HORIZONTAL TYPE HEATER

More heat, better distribution is the answer to any heating problem. McCord, because there is a model and type to meet each particular condition, will do a better heating job. Every improvement that engineers and the experience of many users could suggest is incorporated in the improved models of McCord Unit Heaters. Due to the design and careful attention to balance a new degree of quietness has been attained. The scientifically designed spiral fin tube heating surface provides maximum heat transfer capacity.



VERTICAL TYPE HEATER

McCORD CORPORATION
2580 E. Grand Blvd.
Detroit, Mich.

Specify McCORD ON YOUR NEXT JOB

For more details circle NED-2825 on enclosed inquiry slip

"HELP ON WHEELS"!

LATEST DICO'S Free CATALOG EDITION

. . Sure, Speedy HELP On Your WHEEL PROBLEMS

The latest edition of the DICO Company's WHEEL CATALOG **HELPS** you by answering your high speed and low speed wheel engineering problems . . . with simplified information and specifications on your needs of dependable, highest quality DICO Wheels. Be Sure YOU Get This "HELP ON WHEELS"!

A modern line of industrial wheels 6"—22" rubber diameter.

DICO COMPANY
Write TODAY!
206 S.W. 16th ST., DES MOINES, IOWA

For more details circle NED-2826 on enclosed inquiry slip

New Processes & Materials

MOTOR CLEANERS
spray and dip processes also clean instrument panels, electronic units

Two products, identified as DMC and EMC Magic cleaners, make possible efficient cleaning and reactivating of electric motors. Heavy, mounted motors, instrument panels, electronic equipment, diesel power units and similar equipment can be cleaned by DMC cleaner, applied with a commercial atomizer or sprayer. This method makes unnecessary the disassembly of units. It removes paint spray from mechanisms and carbon corrosion and extinguishes electronic fires without generating phosgene gas.

EMC dip process requires submerging the dirty motor into a tank of solvent, then applying the current through the motor for 3 to 5 minutes, breaking the current and drying the motor with compressed air. Entire operation requires from 10 to 15 minutes. Motors rendered inoperable by dirt are soaked a few minutes longer before applying current.

A 3 to 5 minute bath in EMC after a motor has become water soaked eliminates necessity for baking. This solvent is a nonconductor, is noinflammable and nonexplosive and does not affect wiring, lacquer or any type of gasoline or oil-resistant insulation. Developed by **Northwoods Mfg. Chemists, Inc.**, Dept. NED, Porterfield, Wis.

For more details circle NED-2827 on enclosed inquiry slip

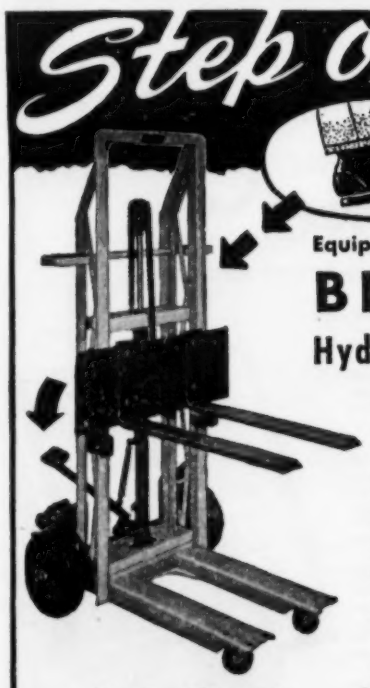
WATER REPELLENT
protects fabrics against moisture

A colorless liquid compound with a silicone base, Rain Rem water repellent waterproofs individual fibers without sealing open spaces between fibers or be-

tween threads in a weave. This renders fabrics water repellent and at the same time permits air to pass through. Compound can be applied by brush, spray or dip. It is packaged in a 12-oz spray can and in 1 pt, 1, 5 and 55 gal containers. It does not change appearance or texture of treated materials. Fabrics so treated can be laundered, dry cleaned and pressed without destroying the effectiveness of the repellent. Photo at right shows water being poured over a blotter, with treated section at top and untreated section at bottom. Made by **Speco, Inc.**, Dept. RSA, 7308 Associate Ave., Cleveland 9, O.

For more details circle NED-2828 on enclosed inquiry slip

Step on it!



Equipped with any of the BIG JOE Hydraulic LIFTS.

ONE MAN can speedily, safely load, lift, move, unload or stack boxes, dies, jigs, drums, machines and merchandise.

The powerful hydraulic assembly, with smooth and accurate release control, saves the worker's time and effort. "Step on it!" is all he does.

Positive locking 2-wheel brakes afford maximum safety.

Capacity—750 pounds
Lifting Heights to 56"
Priced from $236.50
F.O.B. Chicago

Write for Specifications on Fork and Platform Models

BIG JOE MANUFACTURING COMPANY
908 W. JACKSON BLVD. • CHICAGO 7, ILLINOIS

For more details circle NED-2829 on enclosed inquiry slip

MORE PRODUCTION..SAME SPACE

A well-known metal partition manufacturer faced the problem of increasing production without enlarging building. New and better handling methods were obviously needed. They chose an American MonoRail overhead handling system as the best answer to increase capacity without increasing space and with less handling labor. Now, this American MonoRail system handles the steel components from receipt of raw materials, through finishing to shipping. The system boosted production, cut handling labor, improved space utilization, reduced material damage, bettered working conditions, and improved production control.

Let an American MonoRail engineer show you how it can be done in your plant.

THE AMERICAN MONORAIL COMPANY
13116 Athens Avenue • Cleveland 7, Ohio

For more details circle NED-2830 on enclosed inquiry slip

Aeroquip

YOUR BEST BUY IN FLEXIBLE HOSE LINES

FITTINGS are detachable and reusable. For on-the-spot hose line replacements cut bulk hose to required length and attach fittings. It saves time and money, and reduces inventory.

HOSE is tough, durable and fire resistant. Ideal for use with hydraulic fluids, lubricants, water, gasoline, Diesel fuel, air and many other fluids.

AEROQUIP CORPORATION
JACKSON, MICHIGAN

FLEXIBLE HOSE LINES • DETACHABLE, REUSABLE FITTINGS • SELF-SEALING COUPLINGS • BREAKAWAY COUPLINGS • HYDRAULISCOPE

Aeroquip Products are fully protected by Patents in U.S.A. and Abroad

For more details circle NED-2831 on enclosed inquiry slip

Q. What vacuum-producing equipment has no moving parts?

A. The I-R STEAM-JET EJECTOR

Steam nozzle, suction chamber, and diffuser. These are the three basic parts of an I-R Steam-Jet Ejector. They're all stationary, all ruggedly constructed, accurately aligned and rigidly bolted together.

Steam shooting into the venturi-shaped diffuser creates the required suction pressure. There's nothing to wear out—nothing to adjust, lubricate or maintain. Operation is quiet—vibrationless—foolproof.

I-R Steam-Jet Ejectors can be supplied for producing vacuum pressures down to .002" Hg absolute—in any desired capacity, for handling any combination of air, gases and vapors. If you need vacuum equipment, it will pay you to look into I-R Steam-Jet Ejectors. Send for free Bulletin No. 9013A.

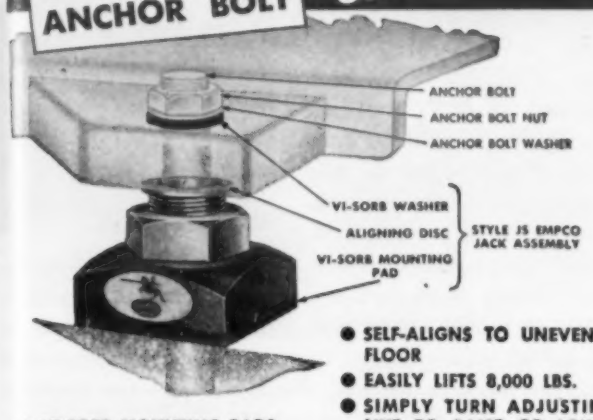
685-4

11 Broadway, New York 4, N. Y.
Ingersoll-Rand

For more details circle NED-2832 on enclosed inquiry slip

NEW JACK LOCATES ON ANCHOR BOLT

Empco JACK STYLE JS



- SELF-ALIGNS TO UNEVEN FLOOR
- EASILY LIFTS 8,000 LBS.
- SIMPLY TURN ADJUSTING NUT TO RAISE OR LOWER MACHINE
- VI-SORB MOUNTING PADS ABSORB VIBRATION

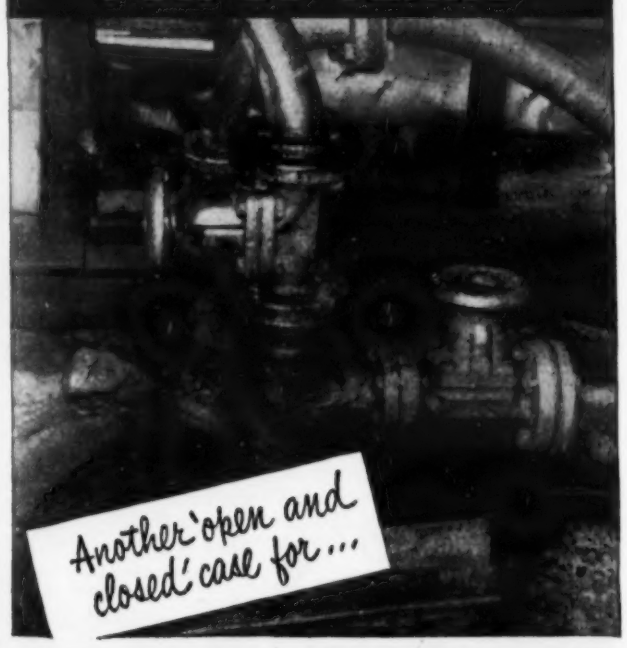
Where anchor bolts are used, this new Empco Jack Style JS will save considerable time in setting and keeping equipment level.
Tested to support 20 tons and lift 8,000 lbs., this Empco Jack is the answer to any machine installations. Anchor bolt hole through the jack assembly allows clearance for ¾" diameter bolt. This permits the Empco Style JS Jack to be used at the *precise spot* where equipment was designed to be best supported.
Available in three sizes: 1¾", 2", and 3" (minimum heights) with VI-SORB mounting pads as optional equipment.
Write for specifications and prices of complete line of Empco Leveling Jacks.

EMPCO PRODUCTS

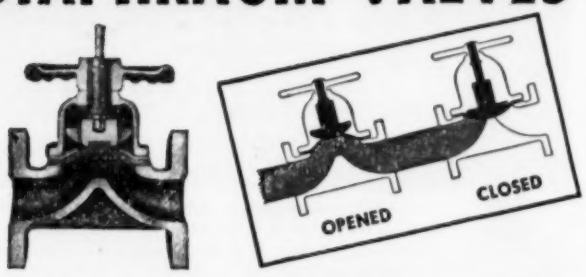
THE ENTERPRISE MACHINE PARTS CORPORATION
2727 JEROME AVENUE • DETROIT 12, MICHIGAN

For more details circle NED-2833 on enclosed inquiry slip

TROUBLE FREE FOR 15 YEARS



GRINNELL-SAUNDERS DIAPHRAGM VALVES



In 1936, a Canadian mine installed Saunders Diaphragm Valves with rubber linings on a muriatic acid storage tank. After 15 years, those *same* valves are in use — no maintenance being required except periodic replacement of diaphragms, accomplished without removing valves from the line.

Bodies of Grinnell-Saunders Diaphragm Valves come in iron, stainless steel, bronze, aluminum and other metals. Cast iron (a metal not in short supply) can be lined with glass, lead, natural rubber, neoprene and other materials, which often handle corrosive fluids *better* than metals.

Diaphragms are available in natural rubber, neoprene, butyl, hycar, a special synthetic for foods and Kel F (which is chemically inert to all acids and alkalies in all concentrations except molten alkali metals). Problems which Grinnell-Saunders Valves can solve are extremely varied. Write us for details.

GRINNELL
WHENEVER PIPING IS INVOLVED

Grinnell Company, Inc., Executive Offices, Providence, R. I.
Coast-to-Coast Network of Branch Warehouses and Distributors

For more details circle NED-2834 on enclosed inquiry slip

New Processes & Materials

FLOOR FINISH for wood and linoleum

Lasting luster, along with good wearability, can be given to wood floors and linoleum by Fabulon floor finish. For application over old or new floors, the clear tough coating does not require waxing or scrubbing. Made by **Pierce & Stevens, Inc.**, 722 Ohio St., Buffalo, N. Y.

For more details circle NED-2835 on enclosed inquiry slip

UNDERCOATING MATERIAL forms tough rubbery skin in 48 hours

Federal specification TT-C-520 is met by EC-1189 sprayable black-asphalt undercoating material designed to protect underbody parts of transportation equipment from corrosion and abrasion and for other weathering and sound deadening jobs. Properties include excellent adhesion to most materials and surfaces and resistance to water, salt and other corrosive agents. When sprayed or brushed to ⅛-in. thickness, it dries in 48 hours to form a tough rubbery hide. Formulated by **Minnesota Mining & Mfg. Co.**, Adhesives & Coatings Div., Dept. NED, 411 Piquette Ave., Detroit 2, Mich.

For more details circle NED-2836 on enclosed inquiry slip

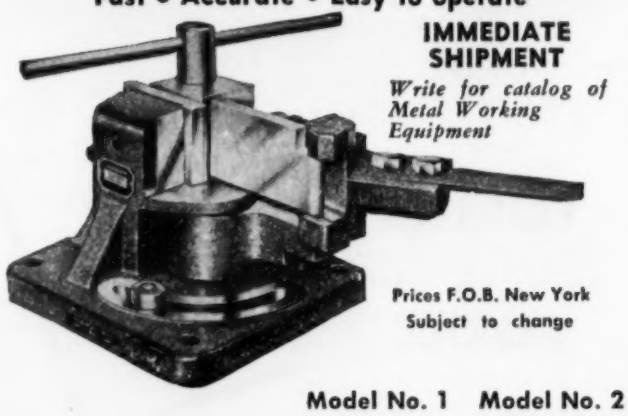
CEMENT DENSIFIER reduces water, retains workability

A physically and chemically stable mineral in granular form which does not expand or contract is chief ingredient of Heatcrete densifier which makes possible high-heat-conductive concrete for radiant heating. Densifier reduces water in Portland cement mixes up to 40 per cent, yet retains workability and setting time. Its high heat and cold transfer ability has proved successful in conventional radiant heating applications using hot air heat; floor panels using steel, wrought iron or copper pipe; hot water ceiling panels; and electric heating wire in sidewalks. It provides hard, abrasive resistant floor surface with a glaze-like finish. Packed in 35 and 70-lb bags, densifier is made by **Lee-Don, Inc.**, Dept. A, P. O. Box 556, Harmarville, Pa.

For more details circle NED-2837 on enclosed inquiry slip

SAMSON ANGLE BENDER
with quick grip clamping device

Hardened steel replaceable jaws • Stop gauge for setting angles • Quick adjustment for thickness • Fast • Accurate • Easy to operate



IMMEDIATE SHIPMENT
Write for catalog of Metal Working Equipment

Prices F.O.B. New York
Subject to change

Specifications	Model No. 1 $69.30	Model No. 2 $96.75
BENDS FLATS	3"x3/16"	4"x¼"
BENDS ROUNDS OR SQUARES	½"	¾"
BENDS ANGLES	2½"x2½"x¼"	3"x3"x¼"
NET WEIGHT	73 lbs.	150 lbs.

JULIUS BLUM & CO., Inc.
Established 1910
536 West 22nd St., New York 11 • WAtkins 9-7042

For more details circle NED-2838 on enclosed inquiry slip

YOU'LL GET years and years of 100% ACCURATE performance...

THOUSANDS OF REDINGTON COUNTERS, many put into service 20, 30, and 40 years ago, are still in continuous use...*and still functioning perfectly!*

REDINGTONS are widely used on
• PUNCH PRESSES • SHEETERS • DRILL PRESSES • CONVEYOR LINES • PACKAGING MACHINES BENCH OPERATIONS
and wherever a positive stroke Counter can be used. Sturdy, reliable REDINGTONS have been standard equipment for years on such well-known printing presses as *C&P, Kluge, Kelly, Banthin, Miehle, etc.*

EQUIP ALL YOUR MACHINES NOW WITH THE UNIT YOU CAN COUNT ON!

Send today for this free illustrated catalog NED, showing all models, applications, prices and quantity discounts.

CHECK THESE LONG-LIFE, HIGH-EFFICIENCY FEATURES:
1) Easy-to-read white or black numerals integral with double-injected plastic wheels—can't wear off! 2) Handsome wear-resistant black crackle finish, 3) Handy reset knob, 4) All-purpose mounting bracket, 5) ALL WORKING PARTS OF STEEL.
Every REDINGTON is fully guaranteed!

F.B. REDINGTON CO. 101 S. SANGAMON ST., CHICAGO 7, ILL.

For more details circle NED-2839 on enclosed inquiry slip

SPEED HAND-LABELING ON HARD-TO-LABEL JOBS with Mystik Self-Stik LABELS

SPEED PRODUCTION—No moistening. Stick instantly.

EASY APPLICATION on hard-to-reach, hard-to-label surfaces.

FLEXIBLE and stretchable for curved or uneven surfaces.

PERMANENT—Resistant to stain, moisture, scuffing, delamination. Removable, if desired, without staining.

BEAUTIFUL—Finest color printing; die-cut; embossed; varnished or acetate laminated.

The outstanding qualities of MYSTIK LABELS are due to rubber-saturated stock and the strongly bonded rubber adhesive, providing strength, flexibility, toughness, strong adhesion and ease of handling. Write for full information and samples.

CHICAGO SHOW PRINTING COMPANY
CHICAGO • NEW YORK

2657 NORTH KILDARE • CHICAGO 39

For more details circle NED-2840 on enclosed inquiry slip

HOW TO SPEED Drum Handling and Save Money

Exclusive! American Drum and Barrel Cradles are designed for one-man handling.
Exclusive! American's disappearing patented loading bar adds speed and safety.
Exclusive! American's Semi-knocked-down packaged units save shipping costs and warehouse space.

Clip coupon and mail today.

THE AMERICAN PULLEY COMPANY
4294 Wissahickon Ave, Phila. 29, Pa.

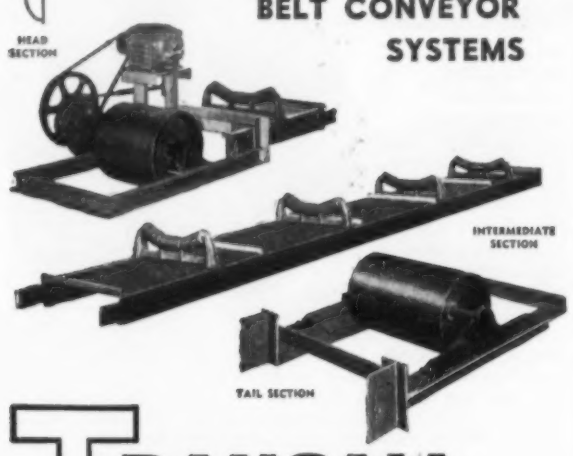
Complete line of Pressed-Steel Hand Trucks • Steelite® Industrial Wheels • Drum King Hand Truck

Gentlemen:
Please send me more information on American Drum and Barrel Cradles.
Name _____
Firm Name _____
Address _____
City _____ Zone _____ State _____

For more details circle NED-2841 on enclosed inquiry slip

PRE-ENGINEERED

BELT CONVEYOR SYSTEMS



TRANSALL

TRANSALL Belt Conveyor Systems can be "custom-fit" to your requirements by using our "pre-engineered" head, intermediate and tail sections. Easy to assemble, take down, shorten or lengthen. TRANSALL Systems save you money on initial costs because they are pre-engineered . . . . reduce maintenance costs because lubrication costs are eliminated. TRANSALL heavy duty idlers are permanently lubricated at our factory. Investigate these and other "plus-features" of TRANSALL Belt Conveyor Systems. Write TRANSALL, Inc., 120 N. 11th Street, Birmingham 4, Alabama.

▲ For more details circle NED-2843 on enclosed inquiry slip ▲

Unsurpassed for... *Quality*

with choice of materials
underwriters' acceptance
dependable service
design and workmanship

*For McGill guards the handles, sockets, cages and miscellaneous parts are carefully selected for their resistance to the wear and abuse of rugged usage and their ability to stand up longer under the most exacting conditions. Important among the new McGill materials is impact resisting molded phenolic for handles — the same material as used in your telephone. Be sure to specify McGill guards for your safety and convenience because McGill is always first with portable lighting improvements.

Available from your electrical wholesaler

Underwriters' Laboratories Inc., Inspected

ONLY McGILL MAKES Levolier SWITCHES

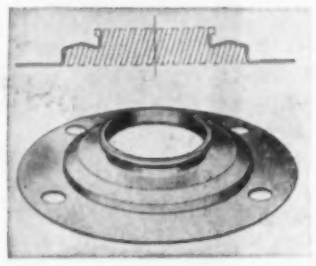
McGILL electrical specialties

McGill Manufacturing Co., Inc., 131 N. Campbell St., Valparaiso, Ind.

▲ For more details circle NED-2844 on enclosed inquiry slip ▲

New Processes & Materials

MOLDED TEFLON PARTS
plastic is chemically inert



All of the excellent chemical resistant, high dielectric, heat resistant and weatherproof qualities of Teflon are retained by process for molding intricate parts of this tetrafloroethylene resin. Material is also suitable for applications requiring low coefficient of friction. It is unaffected by acids, alkalies, alphetics, aromatics, chlorinated hydrocarbons and practically all chemicals except molten metals and fluorine. It retains its toughness at temperatures as low as −320°F. Parts can be compression molded to user's specifications by **Sparta Heat-Treat Co.**, Dover Rd., East Sparta, O.

▲ For more details circle NED-2845 on enclosed inquiry slip ▲

METAL CLEANER
for aluminum, tin, other soft metals

Safety in the cleaning of aluminum, tin and other soft metals is provided by Composition No. 80-A metal cleaner. It can be used in soak tanks or pressure spray washing machines, is readily soluble in hot water and rinses easily with hot or cold water. The composition exhibits no tendency to foam excessively. Made by **Oakite Products, Inc.**, 132G Rector St., New York 6, N. Y.

▲ For more details circle NED-2846 on enclosed inquiry slip ▲

PLASTIC GASKET SEALER
seals with or without gaskets

By adding a 1/64-in. coating of Plastic Gasket material to flange faces and gasket surfaces, vacuum line leakage can be reduced to a minimum. Leaks occurring after line has been in long service can be corrected without dismantling flanges by applying 1/32-in. coating around outside flange surfaces where they meet with the gasket. This can be repeated over and over again, extending gasket life. Where flange faces are unmarred and come together, material can be used by itself. It will not harden after years of service. Two types, one for air, steam, water and mild chemicals; the other for oil, gasoline, solvents, etc., are formulated by **Flexrock Co.**, 3603 Filbert St., Philadelphia 4, Pa.

▲ For more details circle NED-2847 on enclosed inquiry slip ▲

FABRICS & TAPES For ALL INDUSTRY

FLIGHTEX FABRICS

- COTTON
- VINYON
- RAYON
- NYLON
- GLASS

If you use special industrial fabrics and mechanical tapes, you'll find Flightex a dependable source of supply. Our staff of engineers is at your service to help solve your fabric and tape problems.

Write for Complete Information

FLIGHTEX FABRICS, Inc.
91 Worth Street New York 13, N. Y.

▲ For more details circle NED-2848 on enclosed inquiry slip ▲

PRECISION IN ALLOY STEEL TUBE SAVES MATERIAL, TIME-LOSS

CLOSE TOLERANCE . . . Tubing having O.D., I.D. dimension spread of .002" and concentricity within 10% of the wall thickness was needed by a Superior customer to save extensive machining operations with consequent time and material losses. Manufacturer of precision ball bearings, this customer forms both inner and outer races of E-52100 tubing where bar stock was formerly used . . . the savings are well worth having—the bearings perform even better than before.

YOU, TOO may have a need for fine small tubing that can help solve a fabrication or performance problem. Superior can probably help. Check your needs against our production of tubing in all analyses from .010" to ⅝" O.D. and in certain analyses (.035" max. wall) up to 1⅜" O.D. Write for information and free literature today.

SUPERIOR TUBE COMPANY
2018 Germantown Avenue
Norristown, Pennsylvania

▲ For more details circle NED-2849 on enclosed inquiry slip ▲

FOR DEFENSE INDUSTRY MACHINIST WORKMAN FARMER

1ST IN METAL TOOL BOXES

CASES—CHESTS—CABINETS

Here are the world's finest metal boxes. They're better constructed—better looking. Known for their fine materials—workmanship—attractive design. These boxes outlook—outlast—outsell competition. Write for FREE book, including complete information.

WATERLOO METAL BOXES AND CHESTS

Waterloo
VALVE SPRING COMPRESSOR CO.
WATERLOO, IOWA

▲ For more details circle NED-2850 on enclosed inquiry slip ▲

HALLOWELL

"740" STEEL CART
has LOOKS for store and office
STAMINA for shop and factory

The "740" carries everything from stationery and supplies to tools and dies. Its *large capacity* saves countless steps and time. Its *compact design* is made for narrow aisles and limited space.

THE "740" FEATURES
- detachable handle—use it either end
- two trays with deep sides for safe handling—16" x 30" or 24" x 36"
- legs with unique double-angle construction—for extra strength without extra weight
- ball bearing caster races—make steering easy
- sturdy, free-rolling casters—make pushing easy

Write for literature.

STANDARD PRESSED STEEL CO.
Jenkintown 24, Pa.

Shipped Knocked Down . . . IT'S EASY TO ASSEMBLE

HALLOWELL MATERIALS HANDLING DIVISION
JENKINTOWN, PENNSYLVANIA sps

▲ For more details circle NED-2851 on enclosed inquiry slip ▲

New Vane Design features COMPLETE RADIAL BALANCE in Denison's PUMP/MOTOR

RADIALLY BALANCED VANES assure less load on cam rings regardless of operating pressures, and retain low loading characteristics even when system pressures increase.

RADIALLY BALANCED ROTOR provided by opposed inlet and outlet porting.

Entire pumping cartridge (cam ring, rotor and vanes) operates in complete radial balance . . . reducing wear on all moving parts.

Featuring complete *radial hydraulic balance*, the new Denison Pump/Motors are *ready to operate as either pumps or motors, without alterations of any kind.* Four sizes—with interchangeable cam rings—offer eleven different pumping capacities from 2.7 to 70 gpm, plus motor torque ratings from 13 to 257 inch-pounds per 100 psi. All models quickly adaptable for either clockwise or counter-clockwise operation. Write today for bulletin P-5!

The DENISON Engineering Co.
1151 Dublin Road
Columbus 16, Ohio

DENISON HydrOIL ics

▲ For more details circle NED-2852 on enclosed inquiry slip ▲

Everyone Can Count on VEEDER ROOT

Aerial navigators and bombardiers rely on the figures that keep turning up on this Veeder-Root Counter, specially designed for the Armed Forces. And if *you* need to know exactly where you are, with any product or mechanism that's vital to Defense, then you can count on Veeder-Root to help you, to the utmost limits of ability . . . and of available capacity. Write:

VEEDER-ROOT INCORPORATED
"The Name That Counts"
HARTFORD 2, CONNECTICUT
Chicago 6, Ill. • New York 19, N. Y. • Greenville, S. C.
Montreal 2, Canada • Dundee, Scotland
Offices and Agents in Principal Cities

▲ For more details circle NED-2853 on enclosed inquiry slip ▲

New Processes & Materials

CORROSION-RESISTANT COATING for wood, masonry, metal surfaces

Containing inert synthetic resins, Pozcote corrosion-resistant coating for wood, masonry and metal surfaces is impervious to water, acids, alkalies, alcohol, syrups, oils and grease. As a floor coating, product stands up under heavy trucking and foot traffic and can be used indoors or out. It will not crack or peel from temperature changes, and is especially practical for use where chemical fumes, food acids, moisture and high humidity prevail. It is available in complete assortment of colors, including black, aluminum, clear and white. Made by **Monroe Co.**, Dept. M-1, 10703 Quebec Ave., Cleveland 6, O.

▲ For more details circle NED-2854 on enclosed inquiry slip ▲

INSULATING RESINS for use on electrical components requiring high moisture resistance

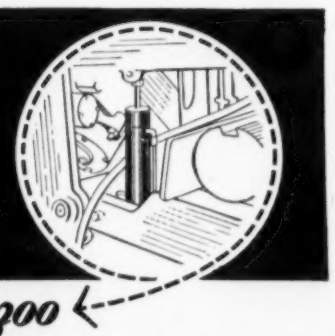
Scotchcast electrical insulating resins No. 1 and 2 are being used for complete encapsulation of electrical components where moisture resistance, high dielectric strength and a protective coating are required. Use is in manufacture of coils, transformers, resistors, unitized electronic circuits and other electrical components. Plastic resins are also being used for dip impregnation of coils for moisture resistance.

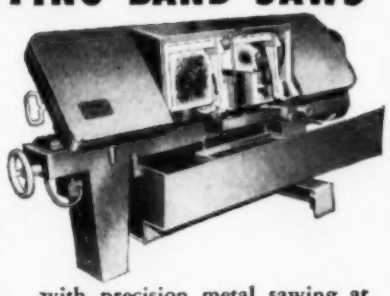
Resin No. 1 is offered in solid form with a catalyst and is heated until liquefied. It sets and is cured at 250° F for 4 to 8 hours. No. 2 comes in a liquid form with a hardener and can be poured into the mold and cured at room temperature in 3 to 6 hours. Either type can be used for most applications, with the latter more suitable for withstanding high temperatures.

Operating range is from −40 to 250° F. Resins have good resistance to acids, alkalies, solvents and oils and adhere to most metals, plastics and conductors. Dielectric strength is about 1000 v per mil on thin sections. Both materials can be machined, drilled, tapped, ground and turned. Made by **Minnesota Mining & Mfg. Co.**, Dept. NED, 900 Fauquier St., St. Paul 6, Minn.

▲ For more details circle NED-2855 on enclosed inquiry slip ▲

You can CUT THIN WALL SECTIONS BETTER with Kalamazoo METAL CUTTING BAND SAWS





Why? Because Kalamazoo's hydraulic frame control is coordinated with the feed control to give just the right blade pressure for smoothest, most accurate cutting of tubing and thin wall sections. In addition, the saw frame cannot drop accidentally and damage material or saw blade. Yes . . . here's *another* reason why Kalamazoo is synonomous with precision metal sawing at lowest cost . . . *another* reason why it will pay you to specify Kalamazoo Metal Cutting Band Saws. Three models, all available with coolant system and casters.

MACHINE TOOL DIVISION
Kalamazoo TANK and SILO CO.
1112 HARRISON ST., KALAMAZOO, MICHIGAN

▲ For more details circle NED-2856 on enclosed inquiry slip ▲

Lacquer-Stik
a Wipe-on for quick permanent coloring of stampings, engravings, symbols and designs

For use on metal, glass, ceramics, plastics

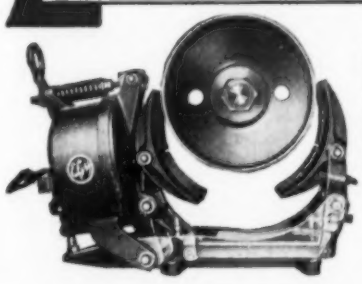
Permanent marking of stampings, engravings and designs is made easy by the use of Lacquer-Stik. Just apply—wipe off excess . . . and you have a permanent mark. Used for marking radio and television dials, knobs on stoves, graduations on instruments, etc.

8 colors to choose from
WRITE FOR SAMPLE.

LAKE CHEMICAL CO.
3053 W. Carroll Avenue, Chicago 12, Illinois

▲ For more details circle NED-2857 on enclosed inquiry slip ▲

LONG LIFE BRAKES FOR A-C and D-C MOTORS by EC&M



Type WB Brake showing how the motor armature is easily lifted out. At top left is the handle-nut for compressing the spring when removing motor armature, changing brake shoes and for manual control.

The brake lining is molded to match curvature of wheel and shoe.

These Type WB Brakes have a thick, tough block type lining.

The blocks have proper frictional quality **throughout the entire thickness,** permitting uniform and complete wear down to rivet heads. Brake adjustments are infrequent.

Built in several sizes. Supplied with series or shunt-wound operating coils for direct current motors. On a.c. service, they are supplied in shunt-wound form for use with a compact rectifier-unit. Send for Bulletins 1004 and 1006.

THE ELECTRIC CONTROLLER & MFG. CO.
2698 EAST 79th STREET • CLEVELAND 4, OHIO

▲ For more details circle NED-2858 on enclosed inquiry slip ▲

ask for DANLY precision DOWEL PINS

Drive easier because tapered leading ends "pilot" Danly Dowel Pins into close fitting holes . . . resist upsetting because they're specially hardened (58 to 60 Rockwell C) . . . meet almost every requirement with two complete size ranges, one standard and one ground .001 oversize for enlarged holes.

Send for this free bulletin for helpful application data and catalog information.

DANLY MACHINE SPECIALTIES, INC.
2100 South Laramie Avenue, Chicago 50, Illinois

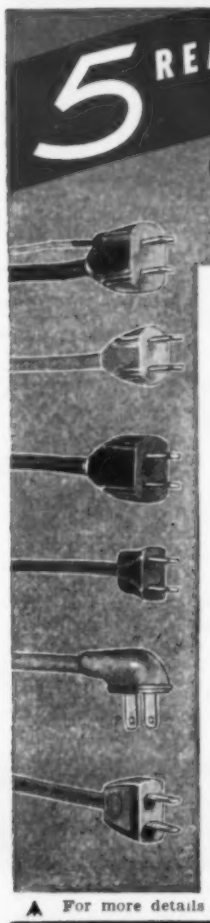
PRECISION DIE SETS . . . DIEMAKERS' SUPPLIES

▲ For more details circle NED-2859 on enclosed inquiry slip ▲

5 REASONS FOR CALLING...

CORDS LTD.

For Cords and Cord Sets



★ Fast delivery on cords of standard construction.

★ Complete engineering and manufacturing service on cords for special applications.

★ Integrated engineering-production control from rod mill to mold department.

★ Most comprehensive stock of dies and molds for electronic cords and assemblies in existence.

★ Quality proved by use on millions of products.

Write for details, explaining your application

CORDS LTD.
Division of Essex Wire Corporation,
121 DODGE STREET
DE KALB, ILLINOIS

WIRE SX PRODUCTS

▲ For more details circle NED-2860 on enclosed inquiry slip ▲

WHAT'S IN THIS PIPE?

YOU KNOW WHAT'S IN THIS ONE

CITY GAS

YOU CAN TELL AT A GLANCE WITH

QUIK-LABEL PIPE MARKERS

Identify every pipe in your plant quickly and inexpensively with Brady Pipe Markers. They give you a uniform system of identification based on ASA Standard A13. Anyone can apply and everyone can identify the pipe contents and direction of flow. Cut maintenance time. Make your plant a safer place to work. Over 235 different markers in stock. Specials made to order.

QUIK-LABELS come on handy dispenser cards. They are printed in large black letters on approved ASA background colors. Applied in a jiffy—they stick without moistening. Use indoors or outdoors. Cost only a few cents per marker.

WRITE FOR Free SAMPLES AND USEFUL CATALOG

DISTRIBUTORS IN OVER 125 PRINCIPAL CITIES

WIRE MARKERS · PIPE MARKERS · SAFETY SIGNS · PRINTED "SCOTCH" TAPE · MASKS & STENCILS

MANUFACTURERS OF SELF-STICKING PRODUCTS

W.H. BRADY COMPANY

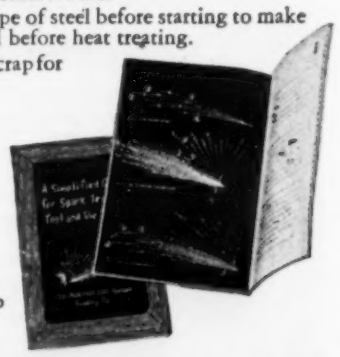
736 W. GLENDALE ST. • MILWAUKEE, WISC.

▲ For more details circle NED-2861 on enclosed inquiry slip ▲

NEW... Handy Guide to Spark Testing Tool and Die Steels!

Here's all the information you need on Spark Testing to quickly identify standard tool and die steels.
This new, 20-page Carpenter Guide to Spark Testing will help you . . .

1. Separate mixed tool steel stocks.
2. Double-check the type of steel before starting to make a tool or die . . . and before heat treating.
3. Segregate tool steel scrap for salvage.



To help conserve steel and avoid heat treating errors that are costly in time, labor and money, put Carpenter's new Spark Testing Guide to work in your plant. This guide is offered free to tool steel users. For your copy, clip and mail coupon, now.

THE CARPENTER STEEL COMPANY
118 W. BERN ST., READING, PA.

Please send me a copy of your new, handy guide to Spark Testing Tool and Die Steels.

NAME..... TITLE.....
COMPANY.....
ADDRESS.....
CITY..... ZONE..... STATE.....
(Please Print)

To help us get this guide to you personally, be sure to include your title and Company name.

▲ For more details circle NED-2862 on enclosed inquiry slip ▲

New Processes & Materials

WATERPROOF MASONRY COATING color and texture are unaffected by this silicone water repellent

Exterior stone, formed masonry, brick, concrete and asbestos siding are protected from water, dirt and staining by Driwal silicone coating. This invisible water repellent coats particles of surface it protects and keeps water from penetrating. It allows masonry to breathe, resists white efflorescence and staining, and is not affected by heat, cold or sunlight. There is no visible change in either color or texture of masonry surfaces coated with this material.

Illustrated is horizontal masonry test panel. Water was applied to upper and middle portions. Water stands out in beads on upper coated portion, while middle area has absorbed water and changed appearance. Lower portion shows dry, original state and is untreated. Made by **Glidden Co.**, Berea & Madison Ave., Cleveland 2, O.

▲ For more details circle NED-2863 on enclosed inquiry slip ▲

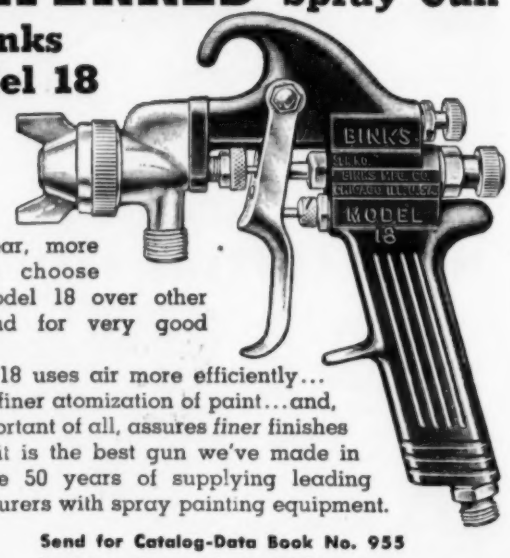
LUMINOUS ACOUSTICAL CEILING eliminates brightness and glare

Glareless illumination along with high acoustical correction is provided by lighting method which makes use of pearly white corrugated plastic ceiling resting on 6-in. deep, 1-in. wide acoustical beams or fins. Latter are made of finely perforated white enameled steel enclosing a nonabsorbent acoustical pad. Fins are placed 36 in. apart and run entire length or width of room. Fluorescent light placed above plastic ceiling comes through completely diffused, eliminating excessive brightness and glare. Ceiling is easily rolled up and removed for washing by special machine. It is nonflame supporting, weighs less than 1 oz per sq ft and does not require additional sprinkler installation. Made by **Luminous Ceilings Inc.**, 2500 W. North Ave., Chicago 47, Ill.

▲ For more details circle NED-2864 on enclosed inquiry slip ▲

PREFERRED Spray Gun

Binks Model 18



Every year, more finishers choose Binks Model 18 over other guns...and for very good reasons.

Model 18 uses air more efficiently... provides finer atomization of paint...and, most important of all, assures *finer* finishes because it is the best gun we've made in our entire 50 years of supplying leading manufacturers with spray painting equipment.

Send for Catalog-Data Book No. 955
for information on the Model 18 and other spray guns in Binks complete line. Write:
Binks Manufacturing Company
3122-34 West Carroll Ave., Chicago 12, Illinois.

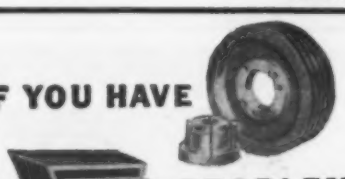
Binks
EVERYTHING FOR SPRAY PAINTING

GUNS • SPRAY BOOTHS • MATERIAL TANKS • EXTRACTORS & ACCESSORIES

REPRESENTATIVES IN PRINCIPAL U.S. & CANADIAN CITIES • SEE YOUR CLASSIFIED DIRECTORY

▲ For more details circle NED-2865 on enclosed inquiry slip ▲

IF YOU HAVE



OR PROBLEMS...

CALL YOUR FORT WORTH V-DRIVE DISTRIBUTOR

HE EITHER HAS IT IN.... OR CAN CONTACT THE NEAREST FORT WORTH WAREHOUSE

THIS MEANS Quick DELIVERY FOR

"QD" and Bolt Rim SHEAVES

FORT WORTH MULTI V-BELTS

MULTI-CORD V-BELTS
STEEL-CABLE V-BELTS
SUPER CORD V-BELTS

Ask about Fort Worth interchangeable hub sprockets—they use V-belt sheave hubs—for immediate delivery without reboring.

WRITE FOR INFORMATION

FORT WORTH STEEL & MACHINERY CO.
Dept. 2211 3600 McCart, Fort Worth, Texas.

▲ For more details circle NED-2866 on enclosed inquiry slip ▲

this wrench

can slash your costs 3 ways

TAC Open End Ratchet Wrench
(SOCKET TYPE)

delivers incredible savings wherever "tight" situations prevail involving tubing, pipe, conduit, cable or long studs. Saves at least three ways:

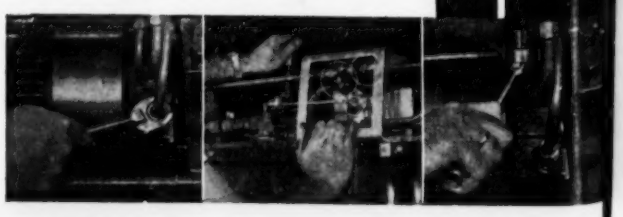
1. **CUTS TIME** on production or maintenance operations because it slips around tubing and down fittings, where you ratchet off or on in mere seconds. Functions perfectly with as little as 7° arc clearance for handle. Reduces workman injury too—TAC can't slip off the work and skin up knuckles.
2. **CUTS COST** on fittings, tubing, etc. Snugs down on fittings, never "barks" or scars the hex fitting or strips thread.
3. **REDUCES INVENTORY OF HAND TOOLS** required in your tool crib. Several sockets, a few head sizes, and you eliminate *over half* the wrenches you'd otherwise maintain.

HERE'S HOW IT WORKS!

"BORROW" ONE—PROVE FOR YOURSELF!

Rated companies may request on Letterhead a sample handle, head and socket, for full trial. We ship on memo billing—returnable for full credit. ACT NOW—"BORROW" THIS MIRACLE WRENCH and prove its value!

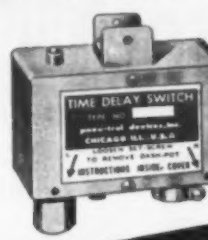
Send for free catalog



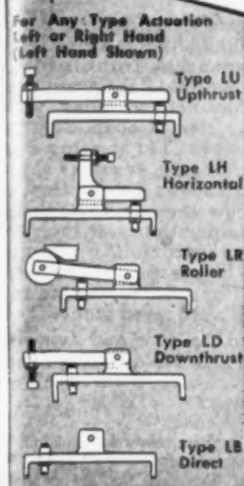
TAC TUBING APPLIANCE COMPANY
10321 Anza Avenue, Los Angeles, California

▲ For more details circle NED-2867 on enclosed inquiry slip ▲

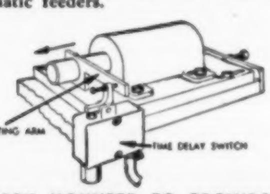
NEW CYLINDER TIME DELAY CONTROL SWITCH
INCREASES APPLICATION . . . WIDENS USE OF CYLINDER POWER



For Any Type Actuation Left or Right Hand (Left Hand Shown)



Pneu-Trol Time Delay Switches provide independent hydraulically controlled adjustable time dwell between ¼ and 60 seconds in 20 to 1 ratios. Readily mounted on machine for cylinder dwell at a positive stop. Compactly designed—a simplified low cost answer to electrical time dwell control of any air or hydraulically operated machine movement such as press work, burnishing, coating, quenching, metal-cutting, etc. Ideal for automatic feeders.



SWITCH MOUNTED TO PROVIDE DWELL AT END OF POWER STROKE

Write for descriptive literature and complete details.

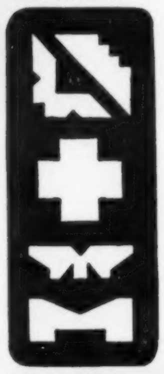
PNEU-TROL DEVICES, INC.
1432 N. Keating Ave. Chicago 51, Illinois

▲ For more details circle **NED-2868** on enclosed inquiry slip ▲

THE di-acro NOTCHER

Duplicates Precision Notches WITHOUT DIES!

The new precision DI-ACRO Notcher eliminates the need for punch press and dies on many production notching operations. It is also ideal for experimental work as it can be quickly adjusted for any size or shape notch. Many straight shearing operations can also be performed with this flexible unit.



CUTS CLEAN — NO BURRS OR ROUGH EDGES The powerful DI-ACRO Notcher has an exclusive roller bearing cam design which provides a tremendous pressure with a small amount of effort. The precision-ground Vee-shaped ram and blades of alloy tool steel assure clean cuts and permanent accuracy.

LARGE CAPACITY. The DI-ACRO Notcher cuts 90° notches up to 6" by 6" in 16 gauge steel in one operation. Larger notches, and wider or narrower angles, can also be obtained.

SEND FOR 40-PAGE CATALOG. Gives full information on all six "DIE-LESS DUPLICATING" production boosters—DI-ACRO Benders, Brakes, Shears, Rod Parters, Punches, Notchers—with many examples of accurately duplicated parts.

DI-ACRO is pronounced "DIE-ACK-RO"

O'NEIL-IRWIN MFG. CO.
354 8th Avenue, LAKE CITY, MINN.

▲ For more details circle **NED-2869** on enclosed inquiry slip ▲

New MIKRO AIR CONVEYING SYSTEM

Ventilates and cools as it Carries Material to the MIKRO-COLLECTOR*

Diagram showing installation of conveying material from dryer (or other equipment) to drum packers, cooling it during conveying from 220 F. to 120 F.

- Permits use of ventilated air for packaging hoods to be used for conveying material
- Reduces required size of dust collecting unit as much as 50%
- Conveys material from any dust source
- Cools the conveyed material without mechanical refrigeration
- Spans distances up to 200 feet
- Will by-pass any obstacle in the form of existing machinery or equipment

SEND FOR new MIKRO AIR CONVEYOR Bulletin

*Patents applied for by H. J. Hersey, Jr. and Pulverizing Machinery Company

PULVERIZING MACHINERY COMPANY
28 Chatham Road, Summit, N. J.

2165

PRESERVE OUR HERITAGE FAITH, FREEDOM and INCENTIVE

MIKRO-COLLECTOR 100 PER CENT
Reg. U.S. Pat. Off.
By the makers of MIKRO-PULVERIZERS and MIKRO-ATOMIZERS

▲ For more details circle **NED-2870** on enclosed inquiry slip ▲

New Processes & Materials

FLOOR PATCH
dries shortly after application

Made of aggregates coated with fast drying synthetic resins combined with asphaltic oils, Superset Tampatch for repairing industrial floors can be placed in service almost instantly after application. Patching operation consists of cleaning and bonding surface to be patched, filling with required material and tamping into place. It becomes smooth with traffic and can withstand heavy loads. Material is shipped in drums of various sizes, ready to use without mixing. Bonding material is in a separate container. Made by **United Laboratories, Inc.,** 16804 Euclid Ave., Cleveland 12, O.

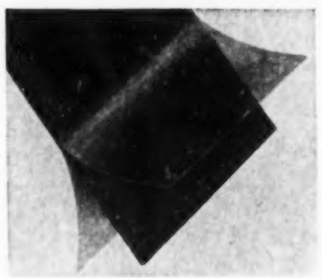
▲ For more details circle **NED-2871** on enclosed inquiry slip ▲

COPPER WATER TUBE
available with hard or soft temper

Refrigeration, air conditioning, humidifying equipment and other lines specifying rustproof and corrosion resistant properties can make use of type L copper water tube. It is available with hard temper, or with soft temper for use where bending is required. Tubing is supplied with ends sealed with caps to keep inside free from moisture, dirt or metal chips. It can be used with wrought solder-joint fittings and is impervious to compressed refrigerants. Sizes available are ¼ to 6 in. Made by **Chase Brass & Copper Co.,** Dept. N-11, Waterbury 20, Conn.

▲ For more details circle **NED-2872** on enclosed inquiry slip ▲

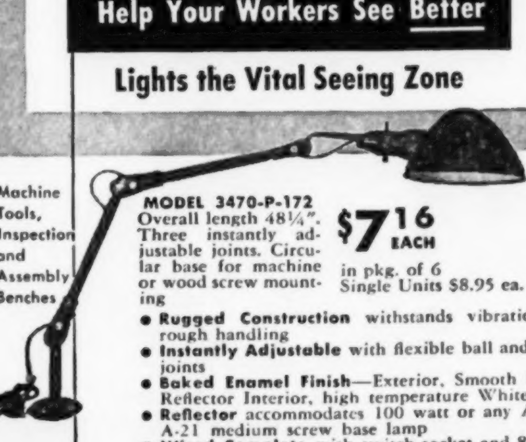
ELECTRICAL INSULATION
is both tough and flexible



Consisting of layer of varnish saturated asbestos paper sandwiched and securely bonded between two layers of varnished open-weave Fiberglas, this class B electrical insulating material is named Aboglas. It is intended for use in heavy duty equipment subject to abuse and overloads in normal service, and is tough, flexible and relatively low in cost. It is clean and easy to handle, will not flake, and conforms to irregular surfaces without application of heat. Standard thicknesses are 0.025-0.027-in. and 0.05-0.054-in. Made by **Natvar Corp.,** 213 Randolph Ave., Woodbridge, N. J.

▲ For more details circle **NED-2873** on enclosed inquiry slip ▲

Light Where Light is Needed MOST
FOSTORIA LOCALITES
Help Your Workers See Better
Lights the Vital Seeing Zone



Machine Tools, Inspection and Assembly Benches

MODEL 3470-P-172
Overall length 48¼". Three instantly adjustable joints. Circular base for machine or wood screw mounting

$7.16 EACH in pkg. of 6
Single Units $8.95 ea.

- **Rugged Construction** withstands vibration and rough handling
- **Instantly Adjustable** with flexible ball and socket joints
- **Baked Enamel Finish**—Exterior, Smooth Gray—Reflector Interior, high temperature White
- **Reflector** accommodates 100 watt or any A-19 or A-21 medium screw base lamp
- **Wired Complete** with switch socket and 8 ft. oil-resistant cord and moulded plug

Write for Complete Catalog of Localite models with various type reflectors, arms and bases for every industrial use.

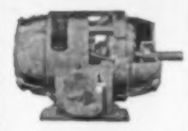
THE FOSTORIA PRESSED STEEL CORPORATION
FOSTORIA, OHIO

Localites are available through electrical wholesalers everywhere.

LOCALITE fostoria for Light ON the Job
Reg. U.S. Pat. Off.

▲ For more details circle **NED-2874** on enclosed inquiry slip ▲

DO THESE NEW Reuland motors FIT INTO YOUR PICTURE?


(cut-away view)

FLUID-SHAFT MOTOR — Provides smooth acceleration of heavy loads. More compact than separate motor and fluid coupling. *Perfect alignment!* Thousands in use on cranes, mixers, centrifugals, etc.

FLUID-SHAFT MOTOREDUCER — This Fluid-Shaft motor and gear reducer combination converts the motor's conventional high speed into a slow speed, smooth starting, compact unit. Ideal for car pullers, conveyers, dryers, etc.

MAGNETIC BRAKE — The only brake that permits the use of TWO output shafts per motor. *When desired the motor shaft can be extended right through!* Only 6 major parts...no levers or linkage . . . self adjusting . . . half usual length!

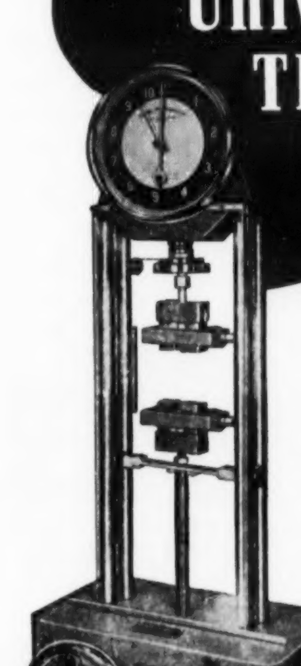
Write for new engineering folder on these and other *exclusive* Reuland Products... *industrial units designed to fill the needs of the nation's leading equipment manufacturers!*

REULAND ELECTRIC COMPANY
ALHAMBRA, CALIF.
Representatives in all principal cities
FIRST IN QUALITY . . . FIRST IN DESIGN

▲ For more details circle **NED-2875** on enclosed inquiry slip ▲

Guess Work Can Cost You Money!

Get accurate engineering data quickly with a DILLON Universal TESTER



Motorized or hand operated. Portable.

For Flat, Round or Special Shapes in all types of materials . . .

With a DILLON TESTER you can do all your own testing in your own plant; saving time and money. There are seven different DILLON gauges, all interchangeable to handle materials with tensile strength as low as .25 lbs. or as high as 125,000 lbs. P.S.I.

DILLON UNIVERSAL TESTERS are compact, ruggedly built, accurate instruments. They are fast and easy to operate—even by untrained help.

DILLON TESTERS are used throughout the world by modern industry because they are economical and dependable, and built to last a lifetime.

Each DILLON TESTER is individually calibrated with an elastic proving ring. These rings are certified by the United States Bureau of Standards and are accurate to within 2/10 of 1%. In actual calibration, the ring is placed in direct series with the Dynamometer gauge. Stress curves are made by highly experienced technicians. Every instrument is individually checked.

FREE! Valuable Tensile Strength Computer and profusely illustrated bulletin. Call, write or wire TODAY.

Precision Instruments for Precision Testing

W. C. DILLON & CO., Inc.
14620 NE Keswick St. Van Nuys, California
(Suburb of Los Angeles)

▲ For more details circle **NED-2876** on enclosed inquiry slip ▲

welded rings save weight and machining time!

If your product uses ring-shaped parts or subassemblies, we may be able to form them for you cheaper than you can now make them. Also save you weight, raw material and machining time. On many designs, our method eliminates machining entirely. Send for Dresser's "RINGS" folder.

"RINGS" folder shows Dresser method, examples of savings, etc. Write Dresser Manufacturing Division, 59 Fisher Ave., Bradford, Pa.

DRESSER RINGS

ONE OF THE DRESSER INDUSTRIES

▲ For more details circle NED-2877 on enclosed inquiry slip ▲

PRODUCTION UP
COSTS DOWN
WITH Commander PRODUCTION TOOLS

Adjustable MULTI-DRILL

- Adjustable To Any Hole Pattern
- Drill 2 to 8 Holes at 1 Stroke
- Fits Any Drill Press

Increase production up to 800%—save time, cut costs. Mounted without alterations or special tools. 9" drilling area; centers to ½". Extension Spindles available to increase area to 22½". Special adaptations available.

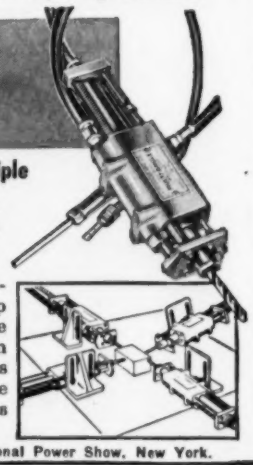
"the tapper that thinks for its operator"

Commander TAPPER

- Wider Range...1 Tapper Handles #0 to ¾" Taps
- Automatic Tap Protection
- Furnished to Fit Any Drill Press

Adjustable full range torque control instantly stops any tap when it's dull, loaded, strikes a hard spot, or bottoms in blind hole tapping. Assures maximum production, cuts rejects, even with inexperienced operators.

MULTI-ANGLE DRILL UNIT



- Quick, easy set-ups for Multiple Drilling of angle holes
- Complete Drilling Unit—Full 4" Stroke

MULTI-ANGLE Drill Units provide unlimited freedom of set-up for long or short run multiple hole drilling jobs. May be mounted on fixtures, jigs or bolted to drill press table. Save time, cut costs on angle drilling. Used with any drill press or suitable power source.

See us at Booths 485, 486, 487, National Power Show, New York.

Write FOR CATALOG #851 and the name of your nearby Commander Distributor

Commander MFG. CO.
4220 W. KINZIE STREET
CHICAGO 24, ILLINOIS

▲ For more details circle NED-2878 on enclosed inquiry slip ▲

New Processes & Materials

CASTING & POTTING RESINS protects electrical components

Usable for cast-resin embedding of electronic circuits and components, Helix potting compounds afford hermetically sealed protection against moisture, fungus, fumes and dirt. They also afford shock and vibration isolation. Supplied in liquid form with hardener, resins are poured cold and cure at room temperature. Cast forms withstand −100 to 400° F temperatures with but slight changes in electrical or physical properties. Moisture absorption is less than 0.01 per cent. Resins are unaffected by acids, alkalies and carbon hydrates. Made by **Carl H. Biggs Co.**, Dept. B, 11616 W. Pico Blvd., Los Angeles 24, Calif.

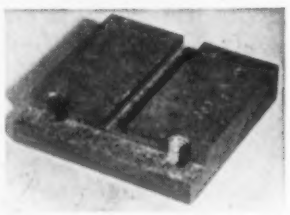
▲ For more details circle NED-2879 on enclosed inquiry slip ▲

ODOR-CONTROLLING FELT impregnated with chlorophyll

For use where control or minimizing of odors is desirable, chlorophyll-impregnated felt imparts a clean smell and is nonstaining and nontoxic. Called Chloro-Felt, it has a slight neutral green tint. Though it has faint chlorophyll odor, from a distance of several feet no scent is noted. Samples are available by stating proposed use. Made by **Felters Co.**, Dept. NP, 210 South St., Boston 11, Mass.

▲ For more details circle NED-2880 on enclosed inquiry slip ▲

INSULATING MATERIALS in sheet form, up to 3 in. thick



Both Duroid 700 and Duroid 800 fibrous insulating sheet materials can be drilled, tapped, machined or sawed with conventional equipment with a resulting good edge finish. Physical strength is comparable to fabric-base laminates, and thicknesses up to 3 in. are available. In gages from 0.031 to 0.125-in., Duroid 700 is used for formed electrical insulating parts and Duroid 800 for flat insulating parts requiring low rate of water absorption. Materials can be made fungusproof or surface-treated. Made by **Rogers Corp.**, 105 Mill St., Manchester, Conn.

▲ For more details circle NED-2881 on enclosed inquiry slip ▲

THE 'BIG 3'

Ask your Burndy Distributor

BURNDY
NORWALK · CONNECTICUT

▲ For more details circle NED-2882 on enclosed inquiry slip ▲

STOP BUYING LABELS

● NOW YOU CAN PRINT YOUR OWN LABELS AT THE SAME TIME YOU ADDRESS OR MARK THEM!

More firms everyday are eliminating the need for expensive, troublesome pre-printed shipping and identification labels with the new Weber Tag-O-Graph. This amazing machine prints, addresses, or marks shipping and identification labels from a roll of gummed or ungummed stock, in one continuous operation...at the rate of 100 to 150 per minute. And counts and cuts them to practically any size you want, too! Reproduces from an inexpensive, easily-prepared stencil.

- ✓ Prints, addresses, marks labels in one operation.
- ✓ Counts and cuts them to size, too.
- ✓ Fast—100 to 150 labels per minute.
- ✓ Produces hundreds of different size labels.

Why not have the size and type of label you want...in the quantities you need...when you want them...all at a moment's notice?

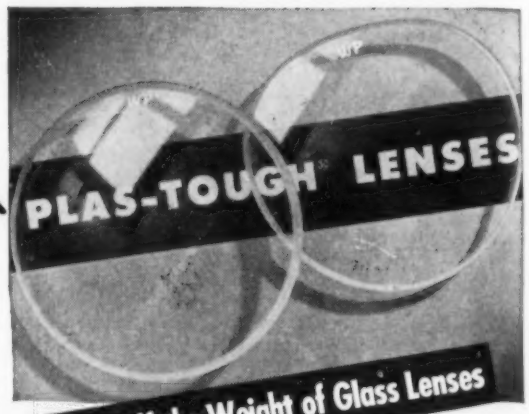
Write today for samples of labels printed by this machine and further information.

Weber Addressing Machine Co.
214 West Central Road • Mount Prospect, Illinois

"For the answers to all your addressing, labeling and marking problems"

▲ For more details circle NED-2883 on enclosed inquiry slip ▲

New WILLSON®



Only Half the Weight of Glass Lenses

- 6-Curve—50 mm. Round
- 6-Curve—P3 Drop Oval—44 and 47 mm.

Add extra comfort to your safety goggles and spectacles with these lightweight, extra tough plastic lenses. Improved surface hardness gives unusual resistance against pitting, scratches, abrasion and many industrial acids that would mar ordinary plastics. Plas-Tough® lenses meet Federal Specifications for impact resistance and light transmission. Replace with Plas-Tough® !

Write for Descriptive Folder

WILLSON PRODUCTS, INC.
219 Washington Street • Reading, Pa.

▲ For more details circle NED-2884 on enclosed inquiry slip ▲

19,440 Pcs. Per Hr.

The New Prutton Model 300 Rollmaster

External Rolled Threads in ½"-13 Hollow Set Screws

First Machine for High-Speed, Low-Cost External Thread Rolling In Hollow Work

- ★ WORLD'S FASTEST, LOWEST COST—Speeds output many times. Saves manhours, floor space.
- ★ VERSATILE—hollow or solid work, wide range of metals, many sizes.
- ★ CLASS 3 FIT—"Cold forged" quality, superior to cutting or grinding.
- ★ DIES LAST LONGER—Full 30 inches mean less wear, longer die life, more pieces per die.

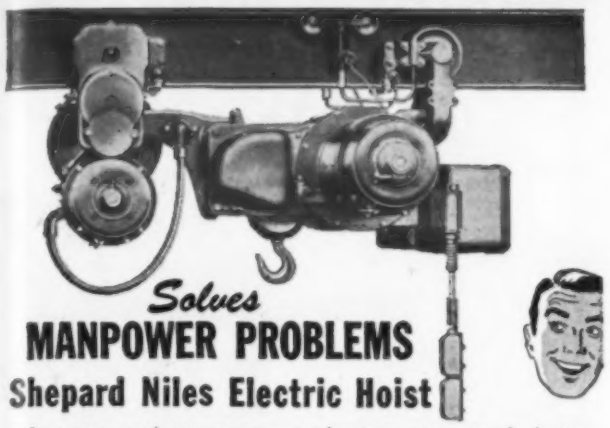
U. S. Pat. Applied For

Rolls in Bigger Profits, Obsoletes All Other Types

Revolutionizing the industry! Exclusive Prutton "planetary" die principle — proven up to 10 times faster than other methods. Does thread rolling, roll forming, knurling, marking, serrating, necking of bolts, screws (hollow set screws and all types) and special parts—both hollow and solid. Ask for complete details.

D. H. Prutton MACHINERY CO.
5295 WEST 130TH STREET
CLEVELAND 11, OHIO

▲ For more details circle NED-2885 on enclosed inquiry slip ▲



Solves
MANPOWER PROBLEMS
Shepard Niles Electric Hoist

One man replaces many — and moves more goods faster — with a Shepard Niles Electric Hoist. These sturdy hoists free valuable floor space, put waste ceiling area to work, enable an older man, woman or youth to handle the heaviest loads with ease.

Learn how a Shepard Niles Hoist — in light, medium or heavy capacity — fits into your production picture. Call in the Shepard Niles representative — he'll make sure you get the right capacity and controls for your handling job. Write today for Bulletins 127 and 171 and ask to have a representative stop by.

- **HOISTS** Operated from Cab, Floor or Pulpit.
- **CRANES** Overhead: Top Running, Inner Running, Under Running, Floor or Cab Operated.

Specialists in loads through-the-air since 1903.

SHEPARD NILES
CRANE AND HOIST CORPORATION
1815 SCHUYLER AVENUE • MONTOUR FALLS, N. Y.

For more details circle NED-2886 on enclosed inquiry slip

DERMATITIS CAN BE CONTROLLED!

How? With West's simple, inexpensive prevention and control program that . . . (1) makes sure of personal cleanliness (2) protects exposed skin areas (3) prevents clothing contamination (4) guards against special hazards.

Dermatitis costs industry a staggering $100,000,000 each year. Compensation and medical care for the average case is $200. Plus, further hidden costs — absenteeism, replacement training, sacrificed quality, lowered morale, lost production. All, needless expense.

The WEST Dermatitis Control Program is based on an in-*your*-plant survey — made without obligation or inconvenience to you. A West representative will be glad to give you details.

***FREE BOOKLET!** Write for your copy of West's new Dermatitis Control Booklet.*

WEST DISINFECTING *Company*
Dept. 16C
42-16 WEST STREET, LONG ISLAND CITY 1, N. Y.

For more details circle NED-2887 on enclosed inquiry slip

New Processes & Materials

HIGH-NICKEL ALLOYS
rolled to ultrathin gages

Temperature compensation, low expansion, high permeability, glass sealing and electrical resistor high nickel alloys are available, rolled to precision tolerances and ultrathin gages. Strip up to 8 in. wide and down to 0.0005-in. thin to tolerances as close as plus or minus 0.0001-in. is offered in quantities from one to thousands of pounds. Alloys include nickel-iron, nickel-chrome, nickel-cobalt-iron and nickel-molybdenum-iron. Made by **American Silver Co.**, Industrial Div., Dept. NED, 36-07 Prince St., Flushing 54, N. Y.

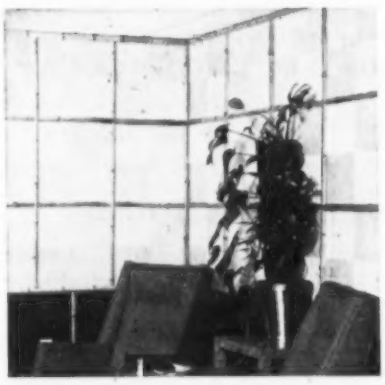
For more details circle NED-2888 on enclosed inquiry slip

PREPAINT CLEANER
removes silicone polish film

Surfaces to be repainted after application of silicone, resin or wax polish can be cleaned, free of all traces of polish, by Gunk solvent which acts with an emulsifying suspending action. After application, sanding can be performed without redepositing a silicone film or imbedding or grinding silicone into the paint or metal surfaces. Final step is to rinse the surface with water to cause the self-emulsifying action. Spray painting can then be performed without further preparation. Offered by **Curran Corp.**, 110 S. Canal St., Lawrence, Mass.

For more details circle NED-2889 on enclosed inquiry slip

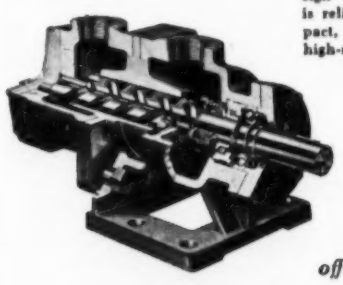
PLASTIC WALL TILES
in 4¼ x 4¼ and 9 x 9-in. sizes



Harmonizing colors are offered in twin line of plastic wall tile. Tile can be installed with or without grouting, and is intended for washrooms and plant kitchens. Illustrated 9 x 9-in. Ridgewall tile is molded in eight harmonious shades for plant offices, recreation rooms, lobbies and institutional application. Twenty-eight colors are included in 4¼ x 4¼-in. Ridgetile line and matching trim pieces. Color fastness, uniform thickness and no gates and burrs are tile features, all of which comply with Commercial Standard CS 168-50 of the NBS. Herringbone pattern on tile backs doubles holding power of mastic preparation. Made by **Ridge Plastics Co.**, 312 Clark St., Elyria, O.

For more details circle NED-2890 on enclosed inquiry slip

Newest IMO pump – Greatest Savings



Note simplicity of unique IMO design—only three moving parts. IMO is reliable, quiet, pulsation-free, compact, excellent for direct-connected high-speed operation.

DE LAVAL
offers immediate delivery of new IMO pump
Write today

This newest De Laval IMO pump—Model A313B—can be used profitably on a wide variety of hydraulic applications for higher pressures. Quantity-produced to help trim your costs, the new IMO saves you up to 40% in initial cost over other IMO models for pressures up to 275 psi. In addition, this quality-designed rotary positive displacement pump gives you all the low-maintenance advantages of the famous IMO pumping principle.

Put the new De Laval IMO A313B pump to work handling light or viscous fluids in hydraulic systems, rotary and steam atomizing oil burners, lubrication, governing systems and similar services. Specify it for capacities to 80 gpm, pressures to 275 psi, intermittent pressures to 325 psi.

DE LAVAL *IMO Pumps*

DE LAVAL STEAM TURBINE COMPANY
808 Nottingham Way, Trenton 2, New Jersey

For more details circle NED-2891 on enclosed inquiry slip

It's NEW!
It's FAST!
TOLEDO® SPEEDWEIGH OVER-UNDER SCALES

Here's *new speed with accuracy* for you in check weighing, packaging, many other operations today . . . 3 sizes—to 5 lb., to 20 lb., to 50 lb.! Shadowfree wide-angle reading . . . accurate to 1/64 of an ounce . . . new improved knife-edge check link system . . . *exclusive* "coined" bearings for greater accuracy, longer life . . . stainless steel beam . . . enclosed levers in one-piece housing . . . choice of platters and scoops . . . many more *plus* features! Write for bulletin 1416. Toledo Scale Company, Toledo 1, Ohio.

TOLEDO® Headquarters for SCALES

For more details circle NED-2892 on enclosed inquiry slip

Keep materials moving . . . WITH SPO AIR VIBRATORS

BULK POWDERED AND GRANULAR MATERIALS FLOW STEADILY FROM BINS, HOPPERS AND CHUTES equipped with low-cost **SPO** air vibrators. Powerful high-speed blows delivered by these sturdy units put an end to clogging and packing.

Full-power starting, high-speed operation, low air consumption and maximum service life are assured by a special corrosion-proof bronze alloy cylinder liner.

Whatever your vibration requirements, **SPO** has a model that will do the job.

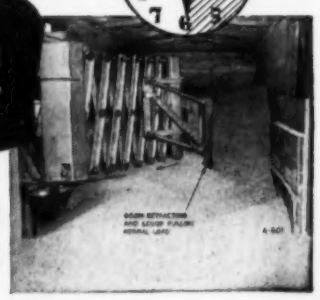
Write today for Bulletin No. 50.

SPO INCORPORATED
866-81 6475 Grand Division Ave., Cleveland 25, Ohio

For more details circle NED-2893 on enclosed inquiry slip

1 Man in 1/2 Hour

Can Empty and Clean a Box Car with an S-A BOX CAR UNLOADER



Full or semi-automatic operation eliminates hand labor and exposure of operator to dust and accidents. Unloads practically all loose, pulverized or granular bulk materials *at lower cost . . . faster* and *safer* than hand-guided power shovel.

One man handles all operations from outside car door . . . with free time to take care of grain doors, move car puller cable and do other duties. The S-A Unloader digs, scoops and cleans. *It's a practical time and money-saver!*

Write for Bulletin 549 containing photos, diagrams and other important details.

STEPHENS-ADAMSON MFG. CO. (S-A)
Standard Products Division
12 Ridgeway Ave., Aurora, Illinois
Please send me Bulletin 549, on S-A Box Car Unloaders.
Name_____
Company_____
Address_____
City_____ Zone____ State_____

For more details circle NED-2894 on enclosed inquiry slip

BRAKE DIES

- UP TO 14 FEET LONG
- MADE FROM CHISEL STEEL BILLETS—FORGED TO SIZE AND THEN MACHINED.
- EVERY SET OF BRAKE DIES IS DEVELOPED FROM A PRELIMINARY SMALL "TRY-OUT" SECTION—TO GET THE RIGHT SHAPE ON YOUR MATERIAL, THEN

- WE MAKE YOUR SET OF PERFECT BENDING DIES
- BY THE MAKERS OF THE FAMOUS SEMCO NIBBLER PRESS.

WRITE FOR LATEST LITERATURE
ASK FOR ESTIMATES

SEMCO
SERVICE MACHINE COMPANY
INCORPORATED
202 MILLER STREET, ELIZABETH, N. J.

For more details circle NED-2895 on enclosed inquiry slip

The New CLEARVIEW
NAMEPLATE PRESS

EASY TO OPERATE • COMPACT • DURABLE

Here at last is a new low-priced Nameplate Press that will pay for itself quickly and many times over.

Now you can stamp neat, perfectly aligned letters and figures on all types of identification plates with this new, easy-to-operate Nameplate Press:
MACHINERY DETAIL PLATES
KEYS — TAGS — CHECKS
IDENTIFICATION PANELS and scores of other identification purposes.

ELIMINATES OBSOLETE STAMPING BY HAND

- Stamps Neat Uniform Characters
- Fully Automatic Letter Spacing
- High Quality Hardened Steel Dial
- Interchangeable Dial Adjustment
- Accommodates Plates up to 4" x 8"
- Prevents Irregular Alignment—Spacing—Depth

FULLY GUARANTEED

Write, call or wire today for complete information and price.

PERMANENT IDENTIFICATION—It is often hard to keep tab on various pieces of equipment because of inadequate or temporary methods of identification marking. A solution to this dilemma may be the metal stamping machine illustrated.

The CLEARVIEW Company
149 E. Houston St. New York, N. Y.

For more details circle NED-2896 on enclosed inquiry slip

REDUCE COSTS
ON "SMALL-WORK" GRINDING & FINISHING JOBS with

Foredom FLEXIBLE SHAFT MACHINES

YOU GET ALL these superior features

- Feather-weight, finger-tip-controlled handpiece (pencil size or larger) which eliminates operator fatigue.
- Choice of 5 handpiece types (all instantly interchangeable). You fit the handpiece to the job at hand.
- Extra good flexing qualities in the flexible shaft assembly for effortless maneuverability.
- Longer motor life because motor is not dwarfed to fit the hand.
- High speed which does not drop precipitately under load.
- Silencer-equipped flexible shaft for vibration-free performance.

BENCH OR HANG UP MODELS FOR HEAVY OR LIGHT DUTY
Also flexible shaft tools attachable to your own drill press or motor

There are over 100,000 FOREDOMS in use

SEE YOUR INDUSTRIAL SUPPLY DISTRIBUTOR. IF HE CANNOT SUPPLY YOU WRITE TO US. MAIL COUPON FOR CATALOG.

FOREDOM ELECTRIC CO., Dept. 5259,
27 Park Place, New York 7, N. Y.
Send your catalog No. 5259, showing different uses of Foredom Flexible Shaft Machines.
Name .....
Address .....
City & Zone ..... State .....

For more details circle NED-2897 on enclosed inquiry slip

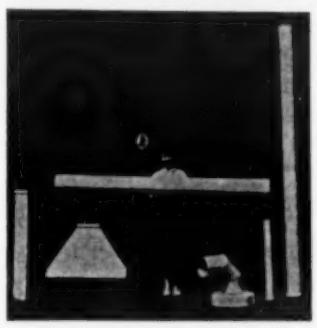
New Processes & Materials

RESIN-BASE METAL COATING resists abrasions and chemicals

Only one heavy finish coat of Nu-Pon A is needed to protect tanks and other metal products from abrasion or corrosive attack of chemicals and moisture. This resin-based material is spray-gun applied together with catalyst which allows it to cure as it strikes surface being finished. Thus a building up of a single finish coat to more than 10 mils thickness without running or sagging is possible. Film is hard, yet flexible. Spray-gun employed has two fluid feeds, one for Nu-Pon A, the other for catalyst. The two materials are mixed in the air by special Binks spray-gun before striking surface. Formulated by **Glidden Co.**, Berea & Madison Ave., Cleveland 2, O.

For more details circle NED-2898 on enclosed inquiry slip

PLASTIC FUME DUCTS are strong and corrosionproof



Line of corrosionproof solid plastic fume ducts, hoods and accessory equipment is offered in various materials: Polyester glass combinations, Rigivin (rigid vinyl type) and Rigidene (polyethylene type). Rigidon, the glass-reinforced polyester resin combination, has the strength of light metals and lighter weight. With good acid resistance, it withstands operating temperatures in excess of 200° F and is easy to install by virtue of its light weight and simple method of field joining. Units are standardized in both round and rectangular duct section and hood designs. Made by **Heil Process Equipment Corp.**, 12902 Elmwood Ave., Cleveland 11, O.

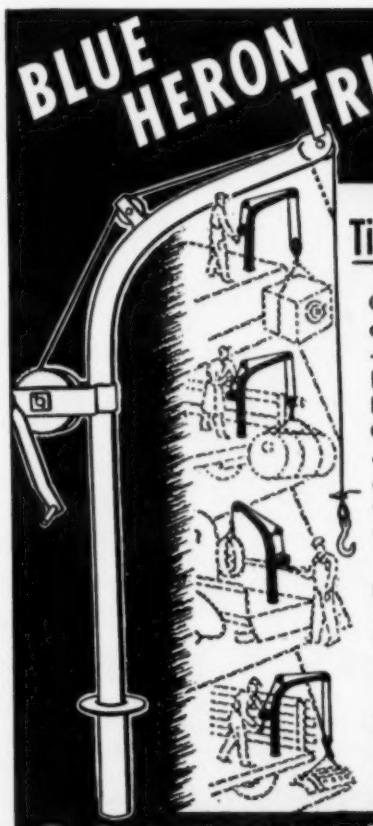
For more details circle NED-2899 on enclosed inquiry slip

CUTTING FLUID wax base type cuts tool wear

Metal cutting action can be improved and tool wear reduced by Wax-Cut concentrate, a blend of special waxes that can be mixed ten-to-one with any type of oil, including reclaimed motor oil, paraffin and sulphurized oils. Thus cutting solutions can be made to order. When diluted, the concentrate serves as a wax-fortified cutting fluid for use in automatic screw machines, gear hobbers, and cutters, milling machines and oil type grinders. It also makes possible increased feeds and speeds, with less smoking, better machined surfaces and less loss of cutting fluids through burning and atomization. Made by **S. C. Johnson & Son, Inc.**, Dept. NED, 1525 Howe St., Racine, Wis.

For more details circle NED-2900 on enclosed inquiry slip

BLUE HERON TRUCK CRANE SAVES
Time Money Labor



ONE MAN can handle up to ONE TON —EASILY and SAFELY!—with a BLUE HERON TRUCK CRANE. Crane swivels through full circle; one man can lift from socket, leaving truck body clear.

Equip ALL company trucks with sockets. Then change cranes from truck to truck.

CHOOSE THE MODEL WHICH FITS YOUR REQUIREMENTS
Model O.C. 30A Cap. 500#
Model O.C. 30B Cap. 1000#
Model O.C. 30C Cap. 2000#

CAM TOOL CO., INC. 11 RANDWICK AVE. OAKLAND 11, CALIF.

For more details circle NED-2901 on enclosed inquiry slip

WINNEN INCINERATOR
Pays For Itself In Less Than a Year!

—Burns Wet or Dry Refuse

The Winnen Commercial Incinerator saves more than its cost in refuse hauling charges within six to twelve months, according to hundreds of satisfied users. It completely consumes up to 400 lbs. per hour of half wet and half dry refuse. A smaller, identical model consumes 100 lbs. per hour. Combustion is so complete there is usually less than a bushel of fine, white ash after a week of normal operation.

Ideal for use in or near residential areas, practically all smoke and odors are eliminated through forced draft, a special ventilating system and secondary combustion. A hot, intense flame is delivered by twin burners using natural, manufactured, bottled gas or oil. Operating costs are amazingly low. Available without any burners for dry refuse, only.

Designed for installation either indoors or out, this incinerator is absolutely safe. It is easily loaded and fired and can be left unattended during day or night. Virtually foolproof, the Winnen Incinerator comes completely equipped with the latest safety devices. Available with automatic timer to control fuel shut-off at pre-selected times, as well as prefab chimney, if required.

Winnen Incinerators are shipped complete, knocked down, direct from factory within ten days of receipt of order. Complete, easy-to-follow instructions for assembling and installing are furnished and any qualified maintenance man can have a Winnen Incinerator ready to operate within a day or less. Installation does not require a mason or furnace man. Materials and workmanship are fully guaranteed for 90 days.

For prices and further information, use the inquiry card or write to Winnen Incinerator Co., 932 Broadway N.E., Bedford, Ohio. (Advt.)

For more details circle NED-2902 on enclosed inquiry slip

TOOLS BLACK DIAMOND GRINDERS

BLACK DIAMOND
PRECISION DRILL GRINDER

FOR THE PRECISION SHARPENING OF ALL SMALL DRILLS —TO REDUCE DRILLING COSTS, DRILL BREAKAGE AND WORK REJECTS AND TO CONSERVE SKILLED LABOR.

Black Diamond Grinders cut 50% and more on drill sharpening and drilling costs. They sharpen small drills so efficiently and accurately that drill breakage and work spoilage are tremendously reduced.

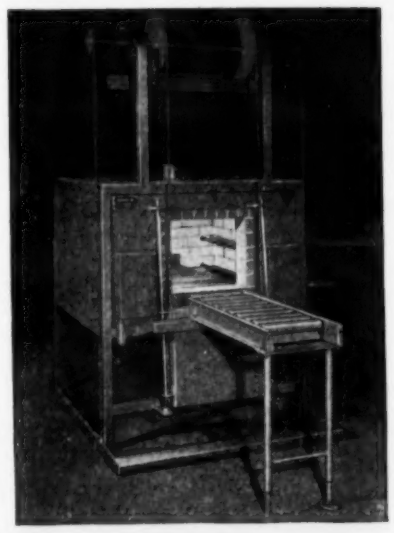
Anyone can operate a Black Diamond, can keep all small drills sharp—and true centered with smooth lips accurately ground to the same length, correct angle and clearance for fast, precision drilling.

The built-in Diamond Point Dresser, is instantly available to keep the grinding wheel sharp cutting and the Web Thinning Attachment cares for all types of Notched Points.

If you use small drills, singly or in gangs, this moderately priced grinder will keep any quantity sharp. Your shop should own a Black Diamond. Write for New Bulletin.

BLACK DIAMOND SAW & MACHINE WORKS, INC.
NATICK, MASSACHUSETTS

For more details circle NED-2903 on enclosed inquiry slip



This Model #RH-68 PERECO Electric Roller-Hearth Furnace is especially designed for rapid and easy handling of large or heavy loads, such as tools, dies, or products of similar nature which are difficult to load or unload from a hot furnace. Also ideally suited for enameling on bulky or heavy metal items. Typical of all Pereco Furnaces built to specialized job-requirement, automatic temperature controls of all standard makes are available to meet the individual need. Tell us your need and let us propose the answer.

PERECO
ROLLER-HEARTH *Electric* FURNACE

Specifications

Chamber Size:	15" w. x 30" d. x 15" h.
Roller Extension:	15" w. x 36" l. (working ht. 30")
Overall Size:	42" w. x 48" d. x 75" h.
Counterbalanced Door:	Drop-type with roller mounted top edge
Atmosphere Vent:	For release of fumes, located in arch
Temperature:	1400° F. normal, 1500° F. maximum
Connected Load:	20 KW, 220 volts, 60 cycle, 1 phase.

Standard and Special units 450° F. to 5000° F.

Write today for Catalog

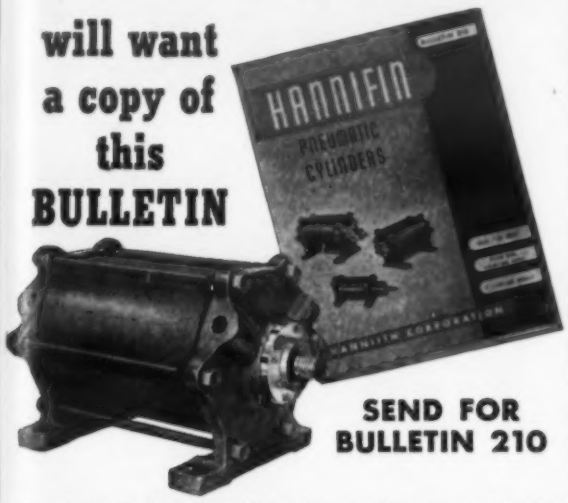
PERENY EQUIPMENT CO.
Dept. G, 893 Chambers Rd., Columbus 12, Ohio

PERENY EQUIPMENT COLUMBUS OHIO

For more details circle NED-2904 on enclosed inquiry slip

EVERY ENGINEER

will want a copy of this BULLETIN



SEND FOR BULLETIN 210

It's easy to get the right cylinder for even the most special jobs when you use Hannifin's big handbook on PNEUMATIC CYLINDERS. 49 pages of helpful specification and engineering data, complete with diagrams and dimensions. The Hannifin line is complete! 6 standard mountings . . . many combination mountings . . . adjustable cushions at either or both ends . . . 2 types of pistons . . . bores to 16". Exclusive construction features assure trouble-free, efficient operation. Send for Bulletin 210. Hannifin also builds custom cylinders in quantity to special design. *Bring us your cylinder problems.*

HANNIFIN

1127 S. Kilbourn Ave., Chicago 24, Ill.

For more details circle NED-2905 on enclosed inquiry slip

Electronic Temperature Control

...with Alnor Accuracy

Alnor, pioneer in the field of electronic temperature instruments, brings you automatic, precise temperature control for heat-treating furnaces, bake ovens—in fact, for any heating device whether electrically heated or fuel fired. It's the Alnor Temperature Controller—simple in design and operation, its accuracy proved on thousands of installations in many industries.

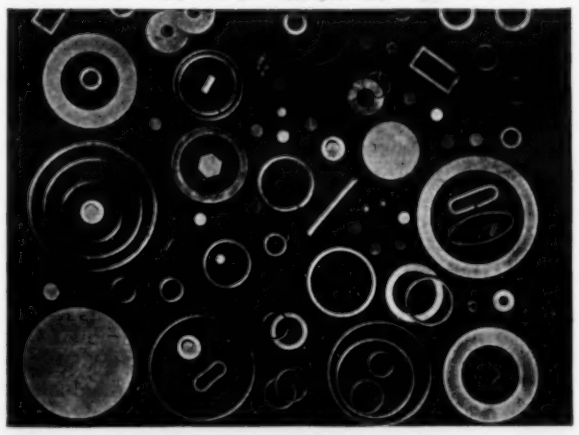
Easily and quickly installed, this instrument is ready to give you accurate controller service on new or existing heating equipment temperature—you merely set the pointer at the desired temperature and forget your indicating and controlling problems. But find out for yourself how Alnor accuracy and dependability can serve you in controller service; write today for complete details on the Alnor Temperature Controller . . . Alnor accuracy at a price you can afford. Illinois Testing Laboratories, Inc., Rm. 529 420 N. La Salle Street, Chicago 10, Illinois.

Alnor PRECISION INSTRUMENTS FOR EVERY INDUSTRY

For more details circle NED-2906 on enclosed inquiry slip

KRE-CO PREPLACED BRAZING ALLOYS LOWER JOINING COSTS

For speedier production and leak-tight joints stronger than the parent metal. Made from Easy-Flo, Sil Fos, Copper, Phos Copper, Bronze, Soft Solder and Aluminum in rings, disks, flat washers, stampings, and special shapes and sizes to meet all requirements. Speedy deliveries in any quantity. Interesting quotations. Tell us to present facts and figures to lower your brazing costs.



CHARLES W. KRIEG COMPANY

48-60 Dickerson St. - HUmboldt 5-2000 - Newark 4, New Jersey

For more details circle NED-2907 on enclosed inquiry slip

New Literature and Catalogs

Laminated Plastics

Formica Co.—More than 50 standard grades of Formica laminate plastics for industrial usage in electrical, chemical and mechanical applications are described in 16-page full-color illustrated bulletin No. 314. Comparator chart tabulates major characteristics and properties of each grade and aids in selection of proper material for each use. Typical applications of sheet, rod, tube, molded and postformed Formica are shown. Also available is 8-page illustrated booklet on Age-Proof Wood for such things as tool handles, power and textile industry parts, sheet metal forming dies and drill jigs.

For more details circle NED-2908 on enclosed inquiry slip

Metal Forming & Cutting Machines

O'Neil-Irwin Mfg. Co.—Dieless Duplicating is the term this company applies to a wide variety of forming, cutting and punching operations performed on medium and lightweight sheet materials by line of benders, brakes, notchers, punch presses, rod parters, rollers and shears. Details of these hand and power actuated metal fabricating machines are given in 32-page illustrated catalog "Di-acro Precision Machines."

For more details circle NED-2909 on enclosed inquiry slip

Centrifugal Pumps

Yeomans Brothers Co.—24-page illustrated bulletin 3-8000 covers a line of vertical centrifugal wet-pit pumps for solids-free liquids and drainage and a screenless sewage ejector which will handle sewage and solids-carrying liquids. Also introduced is Lubri-Vac system for continuous positive lubrication of pump bearings.

For more details circle NED-2910 on enclosed inquiry slip

How To Cut Gear Teeth

Cincinnati Milling Machine Co.—If you want some down-to-earth practical guidance in gear cutting techniques, you'll profit by reading "Cutting Gear Teeth on a Milling Machine." This 60-page illustrated guide book deals with production of all types of teeth, including rack, spur, bevel, helical and worm gear teeth. Gear formulas and reference data are included in special section.

For more details circle NED-2911 on enclosed inquiry slip

Industrial Hose

J. N. Fauver Co. — Complete specifications for Fauver industrial hose assemblies, couplings, stems, swivels and accessories are found in 20-page illustrated catalog No. 52. It is designed for intermediate and very high pressure, ordinary and elevated temperatures, excessive flexing and rough handling of "difficult" materials.

For more details circle NED-2912 on enclosed inquiry slip

How to bond steel's **brawn** to aluminum's **lightness**

Alumibond: unique casting of aluminum to ferrous metals

An amazing new process—ALUMIBOND—enables you to combine the best qualities of aluminum and ferrous metals. If you have problems involving heat transfer, joining, weight saving, oxidation resistance, bearing surfaces—Alumibond can do an unusually successful job for you providing bond strength of 18,000 psi at interface junctions. Leading engineers now employ Alumibond to aid resistance to corrosion, for greater conductivity or heat dissipation, for more free machinability. In hundreds of similar applications, Alumibond can solve your design and production problems.

Write today for new Alumibond booklet

ARTHUR TICKLE ENGINEERING WORKS

20 Delevan St., Brooklyn 31, N.Y. MAin 5-4200

For more details circle NED-2913 on enclosed inquiry slip

If you can "WRAP A STRING AROUND IT" *Sta-Warm* CAN HEAT IT FOR YOU

The particular compound, wax or soft metal melting tank you need to exactly meet your own production requirements can be safely, economically and efficiently heated by "The Sta-Warm Method". It's as easy as tying a string around the outside of the tank. For that is just what Sta-Warm does . . . with a specially processed resistance wire that is cemented and baked in place. Many feet of wire and numerous circuits, controlled by variable or fixed thermostats, provide the famous Sta-Warm heat that is so well known and universally accepted in industry today.

Sta-Warm know-how is at your disposal to help you reduce production costs. Why not investigate Sta-Warm's varied line of standard heaters or their special engineering service? Inquire today.

If you can tie a string around it, Sta-Warm can heat it for you.

Sta-Warm ELECTRIC CO.

130 N. CHESTNUT ST., RAVENNA, OHIO

For more details circle NED-2914 on enclosed inquiry slip

ONCE IT TOOK 2 MEN

NOW IT ONLY TAKES 1

with the **RAYMOND**

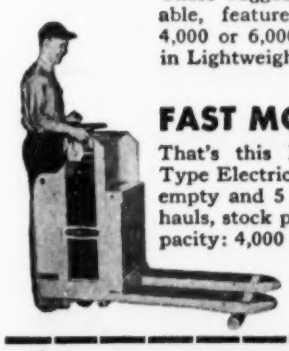
Hydraulic **PALLET LIFT TRUCK**

One man handles 3-ton loads with ease using this RAYMOND Hydraulic Pallet Lift Truck! Why — because hydraulic power, not the operator, does the lifting. A few pumps of the handle and even heaviest loads are ready for hauling.

MODEL L4P

RAYMOND Pallet Trucks help out on short hauls and during peak periods—release your power trucks for long hauls and tiering.

These rugged trucks are highly maneuverable, feature fingertip lowering, come in 4,000 or 6,000 lb. capacities. Available also in Lightweight 2,000-lb. capacity model.



MODEL EL4F

FAST MOVER!

That's this RAYMOND Low-Lift Rider-Type Electric Truck. It travels up to 6 mph empty and 5 mph loaded — speeds up long hauls, stock picking, loading, unloading. Capacity: 4,000 lbs.

SEND TODAY

The RAYMOND CORPORATION

Formerly LYON-Raymond Corporation

4178 Madison St., Greene, N.Y.

Gentlemen: Please send me Bulletin 207, describing your complete line of Hydraulic Lift Trucks. Also Bulletin 750, showing your new Low-Lift Electric Truck.

NAME TITLE

COMPANY

STREET

CITY STATE

For more details circle NED-2915 on enclosed inquiry slip

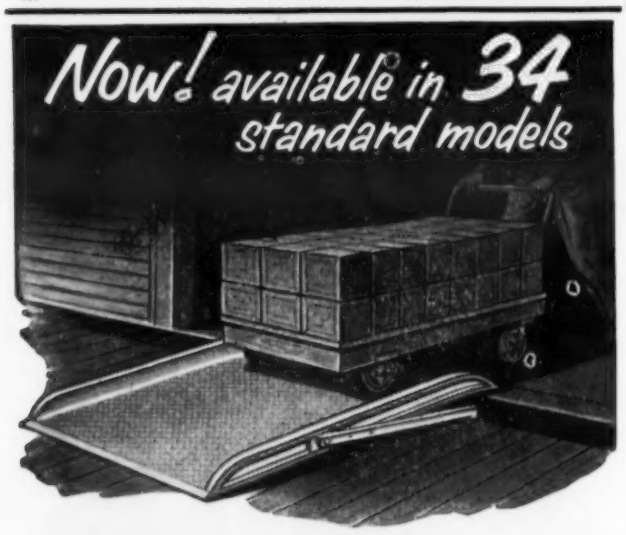
EMERGENCY MANPOWER

"CANTON" Portable Floor Crane. Lifts — transports — spots loads up to 3 tons. One man operation. Emergency manpower for any corner of the shop. Made in varying heights and lifting capacities. Light weight welded tubular steel construction. Safe—Inexpensive—Adaptable.

The HILL ACME CO.
"CANTON" DIVISION 1201 W. 65TH ST., CLEVELAND 2, OHIO

For more details circle NED-2916 on enclosed inquiry slip

Now! available in 34 standard models



MagLiner MAGNESIUM
DOCK BOARDS
for truck docks

Yes, you can now buy Magliner magnesium dock boards in 34 standard sizes. Engineered specifically for truck dock use, these low-cost units are pre-fabricated in a wide range of standard sizes to meet the requirements of nearly all medium-duty truck loading operations. Models available range from 36" to 60" wide, 30" to 60" long, and in load capacity ratings of 1,000 lbs. and 2,000 lbs. (*per axle*).

Unequalled for lightness and easy one man handling, Magliner dock boards are engineered for bridge-design strength and provide assured safety to men, equipment and load. *Equip your docks to handle more trucks, more shipments, more total payload!* Make loading operations smoother . . . faster . . . safer—with Magliner standard dock boards! There's a stock size for your exact requirements. Write for complete information, ask for bulletin DB-203.

LIGHT! Less than 1/3 the weight of steel equipment—Easy one-man handling.

STRONG! Capacity rated to 2,000 lbs. (axle load)

ADJUSTABLE TO VARYING HEIGHTS AND SPANS
•
TRUCKS CAN BACK TO WITHIN 3" OF DOCK
•
REVERSIBLE—IF TRUCK BED IS LOWER THAN DOCK LEVEL, SIMPLY REVERSE BOARD

MAGLINE, INC.
P.O. BOX 396 • PINCONNING, MICH.

For more details circle NED-2917 on enclosed inquiry slip

New Literature & Catalogs

Molder Service Manual

Dependable Machine Co.—Users of Dependable Electro-Unit drive molders, as well as molder operators in general can benefit by the wealth of information contained in "Molder Service Manual EUD." Topics covered are guarantee, installing molder, set-up and care of cutter heads and knives, operating adjustments, operating procedure, stoppages and their remedy, types of common finish defects and remedies, lubrication and safety.

For more details circle NED-2918 on enclosed inquiry slip

Plastic Panel Glazing

Rohm & Haas Co.—Descriptive text and illustrations relative to the glazing of industrial and other buildings with flat panels of acrylic plastic Plexiglas are offered in 16-page booklet PL-23. Properties and behavior of this plastic sheet, methods of cleaning and installation in wood and metal sash are detailed. Tables list percentages of solar heat and visible light transmitted and recommended thicknesses for lights of various sizes.

For more details circle NED-2919 on enclosed inquiry slip

Surface Grinding with Abrasive Disks

Gardner Machine Co.—60-page illustrated "Guidebook for Better Surface Grinding Results" contains helpful information for users of abrasive disks on surface grinding operations. Contents include abrasive fundamentals, selection information, types available, standard markings, spindle speeds, coolant selection, dressing, safety, grinding various materials and care of disks.

For more details circle NED-2920 on enclosed inquiry slip

Pneumatic Clutch & Brake

Federal Machine & Welder Co.—Brief description and illustration of the Warco pneumatic friction clutch and brake is offered in 6-page folder. It features a section on maintenance and a comparison of a positive clutch with the pneumatic clutch and brake.

For more details circle NED-2921 on enclosed inquiry slip

Polishing Disks & Pads

Handy Sales Mfg. Co.—Pictured and described in 12-page 1952 catalog is line of wool and rug pad bonnets, disks and pads designed for auto, furniture or product finishing of any kind. Line shown is adaptable to all types and makes of flexible shaft and portable polishing machines.

For more details circle NED-2922 on enclosed inquiry slip

Elevator Operation & Maintenance

Charles W. Lerch & Associates—In 12-page pocket-size booklet entitled "Elevator Dollars at Work," President C. W. Lerch explores the over-all picture of vertical transportation in office and multistory buildings. He offers reliable suggestions on service, operation, maintenance and modernization.

For more details circle NED-2923 on enclosed inquiry slip

"PIECE DE RESISTANCE"

Big Savings

$$$$$$$$$$$$$$$$$$$$$$$$

IN METAL COMPONENTS

*As formerly made, cost ..... 16¢
As made by us ..... 3½¢
Doing the unusual is routine with us!

SEND IN YOUR BLUEPRINTS FOR OUR QUOTATION

CARROLL PRESSED METAL CO.
138 DEWEY ST., WORCESTER, MASS.
OVER 48 YEARS OF PRECISION METAL FABRICATION
Phone 5-8873

For more details circle NED-2924 on enclosed inquiry slip

Just 2 of 10,000...

Yes—ten thousand applications of La Favorite Rubber Engineering know-how in a year. This "know-how" is something a customer cannot feel or see, but which, is nevertheless, an ingredient in every La Favorite product—time and use have demonstrated its value.

With a backlog of more than half a century of experience, and the third generation of rubber experts now actively participating, you may be sure any rubber use problem of yours, simple or complex, submitted to us will receive the benefit of these outstanding advantages.

Use La Favorite's rubber engineering know-how to your advantage. Send for report #363—send blueprints for estimates on your work.

2110

LA FAVORITE RUBBER MFG. CO.
273 Wagaraw Road • Hawthorne, N. J.
RUBBER LININGS • RUBBER COVERING • RUBBER ENGINEERING

For more details circle NED-2925 on enclosed inquiry slip

Cummins BALL•RITE 44

$29.95

BALL•RITE construction is a combination of the finest specs in an industrial tool.
1. Ball bearings in the right places.
2. Always hardened gears.
3. Always Cummins double coil motor (the type always used in industrial drills.)
4. Always dynamically balanced armature for smooth, flowing power.

Equals $40 Industrial Quality Drills

Here is a $40 drill in everything but price. Has exclusive Cummins BALL•RITE specs . . . PERM-ALIGN gearing that can't accidentally be knocked out of line . . . super-powered motor that can't be stalled in metal up to ¼-in.; up to ½-in. in wood. *Buy BALL•RITE and buy right!* At your Industrial Supply or Hardware Dealer.

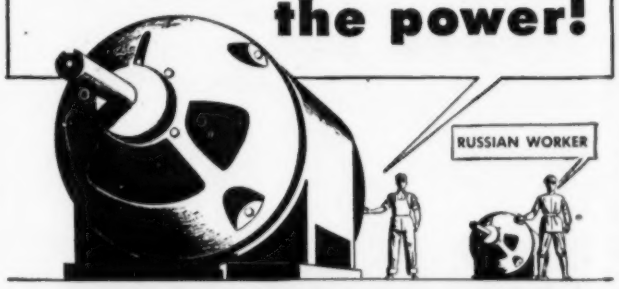
GET THE FACTS— Find out what BALL•RITE means to you. Send for Spec Sheet . . . N-112

SINCE 1887

Cummins-Chicago Corp.
DIVISIONS:
Cummins INDUSTRIALS • Cummins Portable Tools
4740 N. Ravenswood Ave. • Chicago 40, Illinois
IN CANADA: 334 Lauder Ave., Toronto

For more details circle NED-2926 on enclosed inquiry slip

AMERICAN WORKERS HAVE **7 times the power!**



How does America do it?

Why does the American worker have the help of about 7 times as many kilowatt-hours of electric power as is available to the Russian worker? How can we Americans produce over 40% of the world's goods with less than 6% of the world's people? Why is the American output per-man-hour still growing faster and faster?

The answers are not hard to find. Including 1952, private industry in the last 7 years will have invested over 150 billion dollars in new plant and equipment. This contrasts with Federal Government investment of not much more than 12 billion for similar purposes.

Back of all this progress in private industry is the American system of competition. This system promotes the growth of more business—more jobs. Let's all work to preserve it.

This report on PROGRESS-FOR-PEOPLE is published by this magazine in cooperation with National Business Publications, Inc., as a public service.

THE COMPETITIVE SYSTEM DELIVERS THE MOST TO THE GREATEST NUMBER OF PEOPLE

For more details circle NED-2927 on enclosed inquiry slip

▲ For more details circle NED-2928 on enclosed inquiry slip ▲

GENUINE — SIMPLE
SILVER PLATING
"ON THE JOB" WITH POWDER

Purposes of silver plating need not be explained to you of the electrical field.

The biggest problems of silver plating are its convenience, economy and thoroughness. "Cool-Amp" silver plating POWDER is the answer to these problems.

"Cool-Amp" deposits a genuine coat of silver that will not peel off and provides cool maximum conductivity for copper, brass or bronze contacts. It has been proven equal to any electroplating for bolted and stationary contacts and is far more adaptable . . . always ready for use.

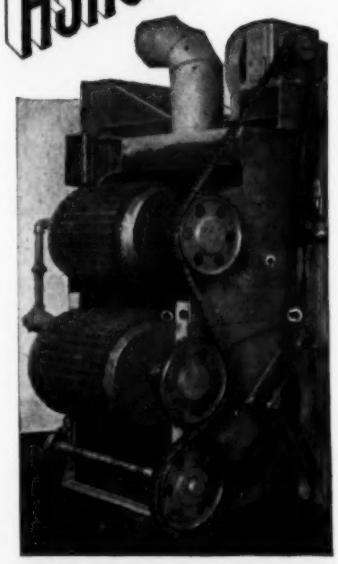
"Cool-Amp" POWDER offers a quick and easy solution to heating due to oxidation, improves the continuity of electrical service and reduces maintenance.

"Cool-Amp" is completely harmless to the user and is simple to apply. It can be used by any number of people at the same time. ON THE JOB, in underground vaults and sub stations and in hard-to-get-at places. The only equipment needed is a sharp steel wire brush or abrasive cloth, clean rag and water.

Dampen a rag, dip in "Cool-Amp" and rub on surface. One pound will silver plate approximately 6000 square inches.

$13.50 PER POUND SHIPPED PRE-PAID.
WRITE FOR FREE SAMPLE AND QUANTITY QUOTATIONS
GENUINE • SIMPLE SILVER PLATING
COOL-AMP
Dept. ED 8603 S. W. 17th Avenue • Portland 19, Oregon
▲ For more details circle NED-2929 on enclosed inquiry slip ▲

Metal Belts
for Processing and Handling all Materials . . .
engineered for the specific end use by
ASHWORTH



For applications ranging from subzero to 2100°F.

Our Engineering and Testing standards are your assurance of "The Right Belt" for the job.

WRITE FOR ILLUSTRATED CATALOG 52D
ASHWORTH BROS., INC.
METAL PRODUCTS DIV. • WORCESTER, MASS.
Sales Engineers located in Buffalo • Chattanooga • Chicago • Cleveland • Detroit • Los Angeles • New York • Philadelphia • Pittsburgh • Seattle
Canadian Rep., PECKOVER'S LTD. • Toronto • Montreal
▲ For more details circle NED-2930 on enclosed inquiry slip ▲

New Literature & Catalogs

Radio, TV & Electronic Equipment

Radio Shack Corp.—Largest catalog ever published by company is the new 224-page 30th Anniversary edition which features a 32-page rotogravure section devoted to components of high-fidelity custom music systems. Over 30,000 electrical and electronic products are described and illustrated. Major listings include tubes, test equipment, transformers, capacitors, resistors, wire, batteries, switches, relays, coils, tape recorders and audio equipment. JAN-approved component listings have been increased.

▲ For more details circle NED-2931 on enclosed inquiry slip ▲

Steam Generators

Erie City Iron Works—20-page brochure SB43 is descriptive of VL steam generators which combine two-drum water tube boiler, integral water-cooled furnace, brickwork, insulation and complete steel casing and which come in sizes to 3000 sq ft. Factory assembled and field erected units for underfeed stoker, spreader stoker, oil or gas, or for all firing methods are pictured.

▲ For more details circle NED-2932 on enclosed inquiry slip ▲

Liquid Methyl Silicones

Dow Corning Corp.—Over 20 different properties, from boiling point to sound transmission are discussed and illustrated in 32-page booklet 2003 on "Dow Corning 200 Fluids." These bland, clear liquid methyl silicones can serve as defoamers, polish ingredients, release agents, dielectrics, damping mediums and paint additives.

▲ For more details circle NED-2933 on enclosed inquiry slip ▲

Industrial Trucks & Cranes

Baker-Raulang Co., Baker Industrial Truck Div.—"How To Select the Right Fork Truck for Your Handling Job" is the title of but one section of catalog 54 on Baker industrial trucks and cranes. Other sections show complete specifications of each truck. Fork truck attachments are detailed.

▲ For more details circle NED-2934 on enclosed inquiry slip ▲

Industrial Tire Guidebook

B. F. Goodrich Company's complete industrial tire line, the service in which each tire should be used and many useful maintenance tips on the care of industrial tires are covered in 12-page "Guidebook." It also points to the advantages of company's Tire & Wheel Analysis Plan.

▲ For more details circle NED-2935 on enclosed inquiry slip ▲

Hydraulic Cylinders

Lindberg Engineering Co., Air & Hydraulic Div.—Complete line of hydraulic cylinders, available with capacities up to 1500 psi and 3000 psi working pressure, is described in illustrated catalog of 28 pages. Diagrams, photo and charts explain the different mounting types. Complete specifications are offered.

▲ For more details circle NED-2936 on enclosed inquiry slip ▲

HERMAN CORRUGATED BOXES
Fit Into Your Over-all Profit Picture

★ Interplant Transportation
★ Machine to Machine Operations
★ Production Line Use

Take costly piece-by-piece handling out of your profit picture.
Speed Production. Save Labor with boxes of heavy gauge corrugated steel.

In standard sizes —or custom built to fit your job.

Model shown 24" x 36" x 12" deep. Available with round or square corners.

Karl A. HERMAN Company
412 FULLER AVE., N. E.
GRAND RAPIDS, MICH.
▲ For more details circle NED-2937 on enclosed inquiry slip ▲

"This machine doubled our output!"
Folding Chair Manufacturer

Bostitch Foot-operated Stapler

A high arm stapler that adapts readily to a wide variety of stapling jobs. Shown here fastening plastic upholstery to chair seat. Also used for carding, assembling wooden toys, fastening wooden drawers, sealing packages of parts. Staples can be formed into a number of shapes. Low model available for seated operator. Easily motorized. Write for complete information on foot and motor operated stapling machines. Bostitch, 691 Mechanic Street, Westerly, R. I.

BOSTITCH®
fastens it better, AND FASTER with wire
▲ For more details circle NED-2938 on enclosed inquiry slip ▲

One of the many specific uses of AETNA plywood — rotor blades for the famous Piasecki "HUP" Helicopter now in service with the Navy.

Need Help in Selecting PLYWOOD?

Does your product require some specific characteristic in plywood — perhaps unusual strength, dependable uniformity, light weight, resistance to heat, moisture or acids?

AETNA PLYWOOD & VENEER CO. offers the technical help of their Engineering Staff in all applications of plywood and veneers. These MEN WHO KNOW PLYWOOD have helped industry to a more effective use of plywood by providing up-to-the-minute industrial facts, performance data and design calculations.

Here are 5 reasons why AETNA is the single, most logical source for all your plywood buying:

1 LARGE STOCK on hand, including sizes cut to your specifications.
2 OVER 40 SPECIES—Fir, Gum, Birch, Walnut, etc. in stock 1/16" to 3" thick, 36" x 48" to 48" x 192".
3 MILL SHIPMENTS to your exact requirements.
4 QUICK DELIVERIES from 4 strategically located warehouses—completely stocked.
5 ENGINEERING STAFF to give you solid technical help.

Let AETNA help solve your problems on industrial uses of plywood

★ ★ ★

AETNA PLYWOOD & VENEER CO.
1718 N. Elston Avenue • Chicago 22, Illinois
ARmitage 6-7100
BRANCH WAREHOUSES: Grand Rapids 7, Mich.; Indianapolis 2, Ind.; Rockford, Ill.

AETNA—PLYWOOD for every purpose
▲ For more details circle NED-2939 on enclosed inquiry slip ▲

16 MECHANICAL FUNCTIONS OF FELT

- SEALING
- WICKING
- WIPING
- POLISHING
- VIBRATION CONTROL
- FILTRATION
- SOUND ABSORPTION
- THERMAL INSULATION
- SHOCK ABSORPTION
- CUSHIONING
- MOISTENING
- PADDING
- PACKAGING
- SURFACING
- FRICTIONAL
- PERCUSSION

These are but a few of the important mechanical functions fulfilled by Felt. Advanced fibre technology and research in American Felt Company Laboratories has led to many new applications where special properties and accurate specification control were needed. An experienced engineering and development staff is ready to assist you by furnishing full technical data or by selecting or designing felt parts for your own special use. Write for "The Story of Felt."

American Felt Company

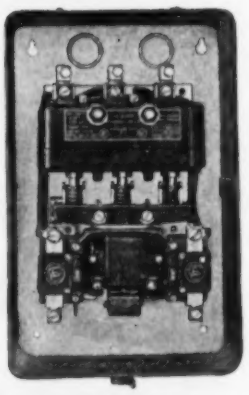
62 GLENVILLE ROAD, GLENVILLE, CONN.

For more details circle NED-2940 on enclosed inquiry slip

CLARK type "CY" AC MAGNETIC MOTOR STARTER

Now Available in SIZE 3

Now you can get this revolutionary starter in sizes 0, 1, 2 and 3. The size 3 uses the same new principle of arc interruption—with magnetic blowouts and twin-break contacts—which has proven so successful in size 2 . . . It provides the extra protection and dependable operation of Mill-type, heavy-duty construction. Many built-in features mean better performance. Designed to reduce maintenance costs to an absolute minimum. Contact surfaces can be quickly inspected without tools. Contacts are easily and quickly replaced without removing starter from cabinet. All parts are accessible and removable from the front.



Clark Bulletin 6013 Type "CY" AC Magnetic Starter, Size 3 with NEMA 1 Cabinet, cover removed. Note clean design with plenty of wiring space.

CLARK Type "CY" AC Magnetic Starters are available in a wide variety of sizes, types of cabinets, and combinations of devices.

Write for information.

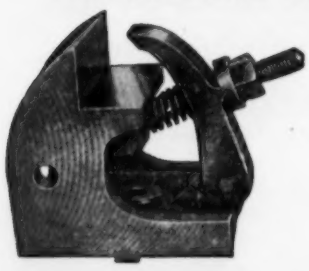
THE CLARK CONTROLLER CO.

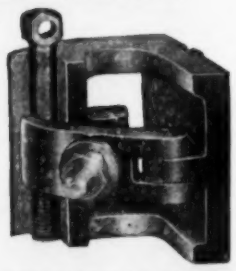
ENGINEERED ELECTRICAL CONTROL • 1146 EAST 152ND STREET, CLEVELAND 10, OHIO

For more details circle NED-2941 on enclosed inquiry slip

•HART•
MILLING FIXTURES
MASTERS OF 1000 SETUPS

ELIMINATE 1000 NEEDS FOR SPECIAL—AND EXPENSIVE JIGS AND FIXTURES





USED IN VERTICAL POSITION

HART MILLING FIXTURES make themselves popular and profitable in any shop—are used in either horizontal or vertical position. Will hold round, hexagonal, octagonal, or square stock, aligning the work with the machine. Grip holds the work on bottom as well as on back. Generally sold in pairs. Made in 4 sizes—to hold stock from ½ to 5 inches.

Write for new bulletin.

WALTER W. FIELD & SON INC.
39 HAYWARD STREET, CAMBRIDGE 42, MASS.

For more details circle NED-2942 on enclosed inquiry slip

New Literature & Catalogs

Power Industrial Trucks

Lewis-Shepard Products Inc.—18-page illustrated catalog 34 gives specifications and outlines features of Jacklift electric and Master Jackstacker trucks which speed materials handling operations. Former are available in pallet, platform, riding type and tractor models, while latter are straddle, open-face pallet, platform and counterbalanced types. Capacities of various models range from 1000 to 6000 lb.

For more details circle NED-2943 on enclosed inquiry slip

Heat-Exchange Coils

Kold-Hold Mfg. Co.—Whether it's heating or cooling that is involved, Platecoils will do the job. They are recommended for use in all types and sizes of tanks, and occupy a minimum of space. Easy to install and affording high heat transfer, Platecoils are even adaptable to applications which are impossible to serve with pipe coils. To get the full story, get a copy of the 20-page illustrated booklet "How Platecoils Have Replaced Pipe Coils at a Savings Throughout Industry."

For more details circle NED-2944 on enclosed inquiry slip

Oil Purification

Honan-Crane Corp.—"Proven Protection Against Oil Failure" is 8-page illustrated booklet that shows how line of oil purification equipment prevents power interruptions, engine breakdowns or other utility failures in diesel engines, turbines, transformers, circuit breakers, switchgear and other oil-filled or oil-using equipment.

For more details circle NED-2945 on enclosed inquiry slip

Electrical Contacts

Gibson Electric Co.—Electrical contact rivets made of coin silver, fine silver, silver alloys, palladium and Ductile Gibsiloy powder metal compositions are discussed in 6-page illustrated folder C-521. Standard sizes of flat, crowned and pointed contact rivets are listed.

For more details circle NED-2946 on enclosed inquiry slip

Steel-Toe Safety Shoes

Safety First Shoe Company—Affording wearer comfort through use of foam latex air-cushioned innersoles, line of steel-toe safety shoes is described in illustrated catalog. Both dress type safety shoes for executives and foremen and standard safety work shoes for use in industry are detailed.

For more details circle NED-2947 on enclosed inquiry slip

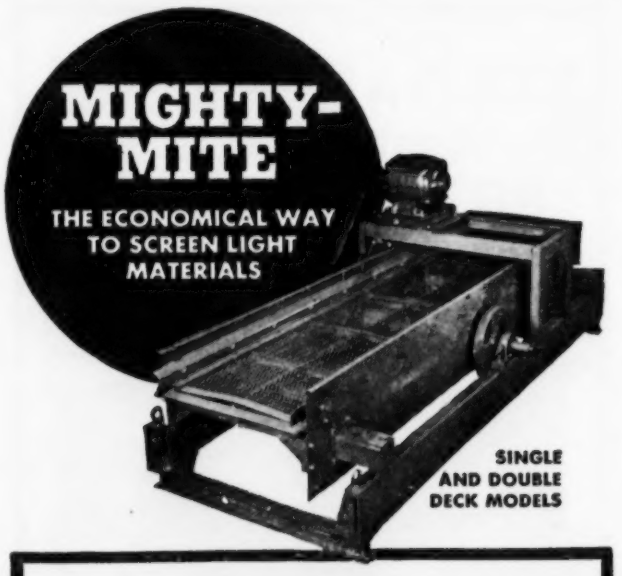
Link V-Belting

Brammer Corp.—Data book No. 205 gives application and selection facts about V-Link belting for all types of mechanical power transmission uses. Selection table includes power correction factors as well as installation and maintenance instructions.

For more details circle NED-2948 on enclosed inquiry slip

MIGHTY-MITE

THE ECONOMICAL WAY TO SCREEN LIGHT MATERIALS



SINGLE AND DOUBLE DECK MODELS

Speeds Up Sizing, Dedusting, Reclaiming

Put a Mighty-Mite to work and you'll minimize time and labor requirements for screening sand, candies, nuts, tumbler chips and hundreds of other materials. Safe, efficient, proven for light duty. Sizes 1½' x 4' to 2' x 8'. Send for folder, Dept. P.

Made By The Makers of SECO VIBRATING SCREENS

SCREEN EQUIPMENT CO., INC.
1752 WALDEN AVE., BUFFALO 25, NEW YORK
In Canada, United Steel Corp. Ltd., Toronto, Ont.

For more details circle NED-2949 on enclosed inquiry slip

Nugent pressure filter installed on turret lathe for filtering cutting compounds.

GET THESE *BIG ADVANTAGES* WITH NUGENT CUTTING OIL and COOLANT FILTERS

1. Oils and coolants are filtered 99.8% clean—can be used over and over again—oil savings almost 100%
2. Tool life is lengthened
3. Rejects reduced through greater accuracy and better finishes.

Scientifically designed, Nugent cutting oil and coolant filters provide 20 times more filtering area than other filters of comparable size. Capacities range from ¼ to 320 GPM. Write for full details. For larger capacities, ask about Nugent gravity filters.

Wm. W. Nugent & Co., Inc.
421 N. Hermitage Ave. CHICAGO 22, ILLINOIS
Est. 1897

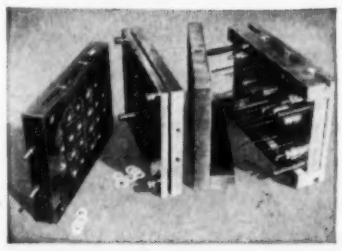
Oil Filters, Oiling and Filtering Systems, Telescopic Oilers, Oiling Devices, Sight Feed Valves, Flow Indicators . . . Representatives in Principal Cities

For more details circle NED-2950 on enclosed inquiry slip

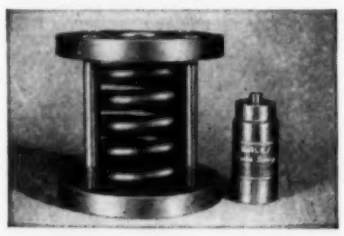
Announcing the New Revolutionary **WALES** *Hydra-Spring* With Up to 600% More Pressure

(Patents applied for)

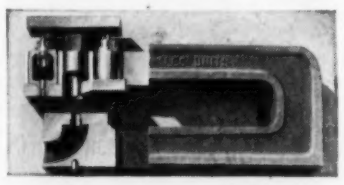
*TRADEMARK



Showing a group of Wales Hydra-Springs in a plastic ejection mold die.



The small, compact Wales Hydra-Spring delivers as much spring pressure as the big, heavy railroad car coil spring.



Showing cutaway view of Wales Type "HS" Hole Punching Unit for punching and stripping *material* up to ¼" thick. The heart of the Wales Type "HS" Hole Punching Units is the pair of Wales Hydra-Springs.

Wales Hydra-Springs SOLVE THE AGE OLD STRIPPING PROBLEM by providing *much greater* stripping pressure than the ordinary coil springs of similar size. In addition to simplifying die design and die making, *Wales Hydra-Springs make possible die operations that were previously impossible.*

For the first time, stripping pressures may be adjusted by simply adding or reducing the volume of SPECIAL COMPRESSIBLE FLUIDS KNOWN AS WALES COMPROILS.

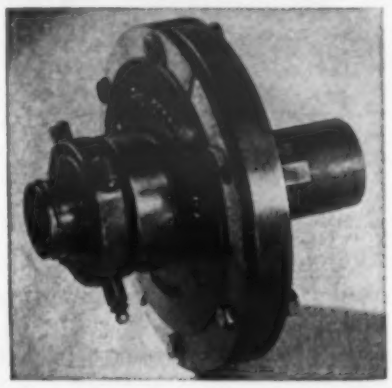
Yes, there is always something new in the Wales Line. This time it is the three models of Wales Hydra-Springs. It is too big a story to tell here so write TODAY for complete information.

WALES-STRIPPIT CORPORATION
GEORGE F. WALES, *Chairman*
363 PAYNE AVE., NORTH TONAWANDA, N. Y.
(*Between Buffalo and Niagara Falls*)
WALES-STRIPPIT OF CANADA LTD., HAMILTON, ONTARIO

Specialists in Punching and Notching Equipment

For more details circle NED-2951 on enclosed inquiry slip

EDGEMONT "K-E" DISC CLUTCH



—for stub or through shaft mounting on gasoline engines, electric motors, speed reducers, et cetera, in extended sleeve (illustrated) or cut-off coupling types for shaft sizes up to 1¼". Bolted split disc feature permits disc replacement without dismounting clutch. Rated at .8 HP at 100 rpm they operate with light pressure, are self locking, have positive threaded steel adjustment. Write for design information bulletin K-2. Other Edgemont clutches range from .3 to 32 HP at 100 rpm for all types of applications.

THE EDGEMONT MACHINE CO.
2200 HOME AVENUE • DAYTON 1, OHIO

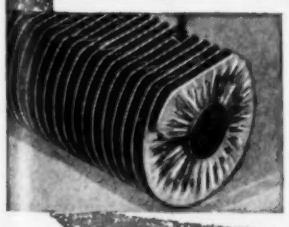
▲ For more details circle NED-2952 on enclosed inquiry slip ▲

THE SERVICE RECORDER COMPANY
1375 Euclid Avenue • Cleveland 15, Ohio

▲ For more details circle NED-2953 on enclosed inquiry slip ▲

ChemoTec

New Bonding Agents join metal to metal . . . or metal to non-metals . . . without heat . . . without pressure . . . at low cost!



The bonding of "fin-tubes" on heat transfer equipment such as this has up to now presented an almost insurmountable metal-joining problem. Today, the extraordinary thin-flowing characteristics of ChemoTec permit it to penetrate to the desired areas by capillary action. Thus, swift and efficient bonding is obtained . . . with excellent color match . . . with tensile strength that more than meets specifications . . . at substantial savings in time, labor, and materials!

Now, with these amazing new organic bonding agents, you can join similar metals . . . or dissimilar metals . . . or metals to non-metals . . . quickly, easily—at extremely low heat or no heat at all!

What's more, simple contact-pressure is enough to form a *permanent, porosity-free* bond with tensile strength exceeding those of many solders! Now you can design and produce—AT LOW COST—such previously "impossible" combinations as:

- Titanium to Magnesium to Aluminum
- Metal to Glass to Ceramics
- Steel to Rubber to Brass
- Wood to Leather to Copper

—*and scores more!*

Tensile strengths exceeding 5000 psi. Low labor costs • Excellent capillary action • Free flowing • Low cost • Heat not essential • No annealing of base metal • Perfect heat control • No galvanic action • No porosity • Pressure not essential • Perfect insulation • No corrosion • No flux needed • Economical in mass production

FREE ChemoTec Bonding Agents are available in liquid, paste, powder, or rod form to answer every production need. Send for FREE illustrated literature, technical data, etc., to see how these new developments can help solve YOUR joining headaches . . . today!

ChemoTec Division
Dept. NED-11
EUTECTIC WELDING ALLOYS CORP.
172nd St. & Northern Blvd.
Flushing-New York, N. Y.

▲ For more details circle NED-2954 on enclosed inquiry slip ▲

Help Fight TB

Buy Christmas Seals

New Literature & Catalogs

Diamond Abrasive Finishing

Elgin National Watch Co., Abrasives Div.—Basic information on the efficient application of diamond abrasives and the characteristics of diamond as an abrasive are detailed in 8-page illustrated booklet "Finish with Diamond." Use of diamond for drawing die polishing, plastic mold finishing, finishing of cutting tool edges and mass production polishing of parts is explained.

▲ For more details circle NED-2955 on enclosed inquiry slip ▲

Fire Fighting Equipment

Fyr-Fyter Co.—Fire protection equipment for every type of fire hazard is described and illustrated in 40-page indexed "Buyers Guide" for portable fire extinguishers and fire fighting accessory equipment. Applications, special features, construction details and specifications are covered, along with operational procedures and selection of correct equipment.

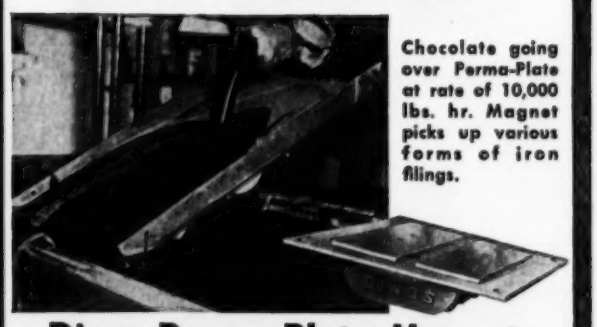
▲ For more details circle NED-2956 on enclosed inquiry slip ▲

Encyclopedia of Plastics

Over 848 pages of data on plastics materials and their molding, extruding, casting, fabricating, assembling and finishing as well as on machines and equipment used in the plastics industry are contained in the "1952 Modern Plastics Encyclopedia and Engineer's Handbook." Included are charts and tables giving such data as complete chemical formulas, physical and chemical properties and ASTM specifications. There is a 132-page buyer's guide that lists supply sources for materials and machinery. List price of $6 includes year's subscription to "Modern Plastics" magazine. Contact Breskin Publications, 575 Madison Ave., New York 22, N. Y.

▲ For more details circle NED-2957 on enclosed inquiry slip ▲

Here's Magnetic Protection Against Tramp Iron At LOWEST POSSIBLE COST!



Chocolate going over Perma-Plate at rate of 10,000 lbs. hr. Magnet picks up various forms of iron filings.

Dings Perma-Plate Magnet
NON-ELECTRIC • PERMANENT • LIGHTWEIGHT

ABOLISH tramp iron threats to your machinery. Gain constant, permanent protection at low cost. The Dings Perma-Plate requires no electricity—no electrical accessories—no maintenance.
Easily installed in chutes, ducts, trays, spouts, over conveyor belts, etc., the powerful Perma-Plate gives you *maximum* tramp iron removal—gives you CERTIFIED magnetic strength, GUARANTEED magnetic permanence. Learn the details—SEND for BULLETIN.

DINGS MAGNETIC SEPARATOR COMPANY
4758 W. Electric Ave., Milwaukee, Wis.
All Types of Electric and Non-Electric Magnetic Separators for Every Purpose.

Dings Certified MAGNETIC STRENGTH

▲ For more details circle NED-2958 on enclosed inquiry slip ▲

COMPACT MOTOAIR® VACUUM PUMP!

Plenty of vacuum in a small, compact space, effective with wall, ceiling or normal mounting. Integral with its motor, it adds little to the motor-size. Lubricates itself.

NO HINGED BLADES • NO GEARS • NO EXTENDED DRIVES

Less parts to wear out, means longer life. Ideal as an accessory on machines where space is limited. Used for packaging, labeling, filling and paper handling machines.

Write for details

NEW JERSEY MACHINE CORPORATION
1530 Willow Ave. • Hoboken, N. J.
Factory offices in Chicago, Cincinnati, Los Angeles

▲ For more details circle NED-2959 on enclosed inquiry slip ▲

. . . for hazardous locations where flammable or explosive dusts are present. Class II, Groups E, F, G and Class III.

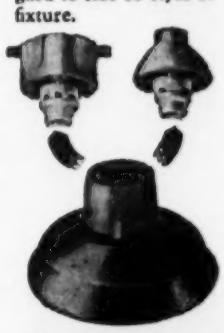
With 2 Exclusive Design Features

R & S Type DL Lighting Fixtures contribute outstanding advances in fixture construction and installation simplicity! They operate very cool—'way below allowable temperatures for this type of installation.

Two *exclusive* design features, in addition to basic advantages common to other well-constructed dust-tight fixtures, assure faster, easier installation, cleaning and relamping. They're made of cast aluminum alloy—designed with streamlined simplicity—and shaped to prevent dangerous accumulation of dust particles. Write for Data Sheet No. 7151.

● Pendent and Junction Box bases are standard to all fixtures. They will accommodate any style fixture—globe—reflector assembly in either 100 watt or 200 watt sizes, providing complete interchangeability.

1 Lampholders are located within the conduit box assembly of both pendent and junction box types, permitting installation and wiring without regard to size or style of fixture.



2 All fixture—globe—Reflector assemblies fit either base and are easily attached or interchanged by means of a simple bayonet slot and screw arrangement, without disturbing electrical connections.

RUSSELL & STOLL COMPANY, INC., 125 Barclay Street, New York 7, N.Y. C-6

RUSSELL & STOLL
PRECISION-BUILT ELECTRICAL EQUIPMENT—SINCE 1902

▲ For more details circle NED-2960 on enclosed inquiry slip ▲

for Your Shipping Dept.

NEW DESIGN...
FITS THE HAND...
LESSENS FATIGUE

The "HANDY A" is the only fountain stencil brush with the "natural grip."

- Lightweight, one-piece, leakproof construction.
- Push-Button Ink Control.
- Easy to Fill.
- Replaceable Tips.

FREE! "IDEAL SHIPPING GUIDE. Handy Shipping room hints.

Manufacturers of Ideal Stencil Machines, Markers, Ink, Stencil Board, etc.

IDEAL STENCIL MACHINE CO.
134 IOWA AVE., BELLEVILLE, ILL.

For more details circle NED-2961 on enclosed inquiry slip

The ONE and ONLY adjust-o-matic RACK

AMERICAN RATCHET RACK

adjustable without bolting

..and the rack-shelf is in position

- No waste space... more storage space per sq. ft.
- Built for any size pallet skid or box.
- Let us tell you more... send for literature.

Installation at Westinghouse Electric Corp., Trafford, Pa.

AMERICAN TUBULAR MATERIALS HANDLING EQUIPMENT
PRODUCED BY
BORROUGHS MFG. COMPANY

AMERICAN SALES ENGINEERS
5959 Linsdale • Detroit 4, Michigan

For more details circle NED-2962 on enclosed inquiry slip

New Literature & Catalogs

Torque-Arm Speed Reducers

Dodge Mfg. Corp.—Full engineering information and selection data on complete line of Torque-Arm speed reducers and the new overload release, designed for use with the reducer, are contained in 20-page bulletin A-614-A. Data and tables have been revised to cover the new size No. 7 reducer which increases the capacity range from 37 to 43 hp. Speed range covered is 12 to 330 rpm.

For more details circle NED-2963 on enclosed inquiry slip

Safety, Limit & Interlock Switches

Minneapolis-Honeywell Regulator Co., Micro Div.—Dimensions, mechanical and electrical characteristics and capacities of safety, limit and interlock switches designed for switching alternating current circuits are presented in 24-page catalog No. 82. Splashproof, explosionproof models are shown along with auxiliary brackets and switch-actuators, standard basic switches and the ultra small switch designs.

For more details circle NED-2964 on enclosed inquiry slip

Hydraulic & Air Cylinders

Miller Motor Co.—Two illustrated 8-page bulletins, H104G and A-105G, provide engineering, design, construction, mounting and dimensional data pertinent to square-design hydraulic cylinders for 2000-3000 psi operation and nonrotating air cylinders which operate on 200 psi. Both booklets cover 13 different mounting styles, the first in 1½ through 12-in. bores, the second in bores from 1½ through 14 in. Data layouts in both facilitate quick product selection.

For more details circle NED-2965 on enclosed inquiry slip

Electrical Specialties

McGill Mfg. Co.—40-page illustrated catalog on McGill electrical specialties is sectionalized for easy reference. Sections are devoted to descriptions of line of Levolier switches and sockets, portable lamp guards, wall and receptacle guards, lamp changers and accessories.

For more details circle NED-2966 on enclosed inquiry slip

Pipe Coupling Uses

Pittsburgh Pipe & Coupling Co.—"The Key to more Than 44 Uses of 'Anvil Brand' Pipe Couplings" can be found in 12-page pocket-size booklet of the same name. Plumbing, electrical, industrial, oil and gas and water well applications are covered.

For more details circle NED-2967 on enclosed inquiry slip

Push-Pull Control Systems

Simmonds Aerocessories, Inc.—Various phases of push-pull control application are covered in 12-page manual for design engineers. Numerous photos, tables and drawings are included in booklet which also covers construction features, design details, types of installations, principal components and layout planning.

For more details circle NED-2968 on enclosed inquiry slip

MEASURE TENSION at a glance with Apco Mossberg Torque Tools

There's no need for guesswork in testing or adjusting final tension on precision assembly screws — not when you can do the job quickly and accurately with Apco Mossberg Torque Screw Drivers!

Now available in a full range of sizes — from 0-6 inch ounce models to 0-24 inch ounce models with large positive and positive-negative dials — Apco Torque Screw Drivers facilitate controlled screw tightening on all types of electrical equipment. Every model is easy to handle ... simple to operate ... completely dependable. Large, easy-to-read dials assure fast, accurate measurements. AND ... Apco Torque Drivers feature standard Stanley Tool holders to accommodate interchangeable bits, make tightening and testing torque on *all* types of screws *easy* — even on light plastic screws where uniform tension is a requisite.

Contact your distributor or write direct now, for complete details on these and other Apco Mossberg "Torque Tools for Industry."

APCO MOSSBERG CO.
ATTLEBORO, MASS.

For more details circle NED-2969 on enclosed inquiry slip

HOBBS ANGLE-PROOF LOCK WASHERS
EST. 1882

You can *depend* on Hobbs spring lock washers to meet all job requirements and government specifications. Available in high carbon steel, stainless steels, silicon and phosphor bronze, and all types of platings.

HOBBS COTTER PINS are available in steel, brass, stainless steel, and monel in extended prong (Loxit) and hammer-lock (HobLok) types. HobLok cotter pins lock themselves when hit with hammer!

Write now for Hobbs lock washer and cotter pin price lists!

HOBBS MANUFACTURING CO.
Fastener Division
41 SALISBURY ST., WORCESTER 5, MASS.
EST. 1882

For more details circle NED-2970 on enclosed inquiry slip

NEW J.I.C. STARTERS

STOCKED IN NEMA SIZES 1, 2, 3
For machine tool control

New Ward Leonard non-reversing, magnetic, combination starters of the fusible or non-fusible type are designed and built in accordance with J. I. C. standards.

Fusible type starters fulfill N. E. C. requirements for motor branch circuit over-current protection, disconnecting means, motor-running over-current protection and motor controllers.

Non-fusible type starters meet these same requirements with the exception of motor branch circuit protection.

These starters are recommended for use where a magnetic across-the-line starter coupled with disconnect means at starter location is specified and where the control equipment must be protected against oils or coolants.

On special order, multi-motor and reversing starters to J. I. C. standards can be supplied.

Write for J. I. C. Combination Starter Bulletin 4120. WARD LEONARD ELECTRIC CO., 51 South Street, Mount Vernon, N. Y. Offices in principal cities of U. S. and Canada.

WARD LEONARD ELECTRIC CO.
Result-Engineered Controls Since 1892
RESISTORS • RHEOSTATS • RELAYS • CONTROL DEVICES

For more details circle NED-2971 on enclosed inquiry slip

Rutted FLOORS Inexpensively Resurfaced . . .

To suit a floor to heavy trucking . . . patching spalled concrete . . . pitching for drainage . . . or making hard floors warm and resilient . . . Tremco methods substantially save repair costs.

TREMCO MAN EXPERIENCE

...gained through solving floor problems for a quarter century make effective results possible at low cost. Tremco Man, J. N. Cassella, expertly solved this problem of serious floor disintegration for Frederic B. Stevens Inc., Detroit, Mich., manufacturer of foundry equipment. A trained Tremco Man like him is located near you.

For Safe . . . Speedy . . . Heavy Materials Handling

Spalled and pitted floors were resurfaced with a half-inch layer of Mulsomastic. Cassella's recommendations of proper aggregate mixture and resurfacing technique assured a lasting load bearing surface. Result: Durable and smooth floors and aisles for economical safe, speedy trucking . . . at a substantial savings. Write today for your copy of "Mulsomastic Flooring". The Tremco Manufacturing Co., Cleveland, Ohio or The Tremco Manufacturing Co., (Canada) Ltd., Toronto.

TREMCO THE TREMCO MANUFACTURING CO. CLEVELAND, OHIO

For more details circle NED-2972 on enclosed inquiry slip

AUTOMATIC SNAP-ACTION SWITCH FOR A WIDE VARIETY OF CONTROL APPLICATIONS

Cutoffs for many kinds of systems, counting devices, signal alarms, and operation of automatic machinery! These are a few of the countless applications for which the new Snap-Action Bell Switch is ideal. Simple standard wiring makes it easy to design it right into your machinery. A simple magnetic armature in proximity will actuate the switch positively and accurately. You can get the Bell Switch unit in standard or immersion proof models for the most severe services.

For detailed information on sizes, specifications and applications, write Jo-Bell Products, Inc., 4840 South St. Louis Ave., Chicago 32, Ill. Do it today!

▲ For more details circle NED-2973 on enclosed inquiry slip ▲

UNIVERSAL DRILL BUSHINGS in a complete variety of sizes and shapes

Universal Drill Bushings are produced in a complete range of standard sizes and lengths. Prompt attention is also given to orders for special dimensions. Universal Drill Bushings are precision machined with super finish bores to reduce wear, and a blended radius to keep tool hang-up and breakage to a minimum. 100% concentricity and hardness tests insure absolute accuracy, uniform high quality, and long life. Write today for complete information.

The modern home of finer production tools 167-A

UNIVERSAL ENGINEERING COMPANY
FRANKENMUTH 5, MICHIGAN

▲ For more details circle NED-2974 on enclosed inquiry slip ▲

INCREASE PRODUCTION...eliminate errors...prevent costly accidents ...*in your industrial operations.* Westline pressure-sensitive labels are easy to 'a-ply-dry'... and they stick-and-stay-stuck through heat, cold and humidity. Westline pressure-sensitive markers provide over 12 different solutions to your industrial identification problems. They can be supplied from stock or to your exact specifications in size and marking information. Get the facts on this amazing modern method of industrial marking today!

solved YOUR INDUSTRIAL IDENTIFICATION PROBLEMS!

WIRE
PIPES
FLOW LINES
PARTS-IN-PRODUCTION
INSPECTION
INSTRUCTION
QUICKLY IDENTIFIED
!

WESTLINE *Products*
Division of Western Lithograph Company
600 East Second Street, Los Angeles 54, California
Box 3804, St. Louis 22, Missouri
Write for Folder, Dept. NED-11

▲ For more details circle NED-2975 on enclosed inquiry slip ▲

New Literature & Catalogs

Precision Control Systems

Transicoil Corp.—Numerous photos and diagrams of automatic control components, as well as full descriptions of basic control motors, motor-driven induction generators, miniature gear trains, servo amplifiers and combination units are presented in 12-page guide-bulletin MC1. All units are electrically and mechanically adaptable to match automatic control requirements precisely.

▲ For more details circle NED-2976 on enclosed inquiry slip ▲

Hardboard Applications

Masonite Corp.—12-page brochure on production economies in factory maintenance, materials and handling and materials processing will tell you "How to Improve Factory Methods with Masonite Presdwood." Covered are architectural applications, bins, utility boards, cabinetwork, containers, doors, floors, booths and ventilators, machinery, materials handling, work surfaces, working and tooling, applications using adhesives and nails, finishing and bending.

▲ For more details circle NED-2977 on enclosed inquiry slip ▲

Ball Bearing Lubrication

Fafnir Bearing Co.—Everyday problems of ball bearing lubrication and maintenance are discussed in 8-page form 426 entitled "The Lubrication of Fafnir Ball Bearings." Basic reasons why lubrication is necessary and the advantages of oil or grease are included. Specific illustrations of bearing and housing design are shown.

▲ For more details circle NED-2978 on enclosed inquiry slip ▲

Woven Wire Slings

Cambridge Wire Cloth Co.—Data on the three major specifications to which slings are made, recommended uses and loading data and listings of prices for standard sizes are contained in 15-page catalog on Gripper woven wire slings.

▲ For more details circle NED-2979 on enclosed inquiry slip ▲

Drill Presses

Boice-Crane Co.—The 120 models comprising the line of Helmet Head and Challenger drill presses are described and illustrated in catalog BC-8. Included are high and slow speed bench and floor models in one, two, three, and four-spindle combinations. The 15-in. machines are rated at ⅝-in. heavy duty and ½-in. medium duty.

▲ For more details circle NED-2980 on enclosed inquiry slip ▲

Electronic Transformer Applications

United Transformer Co.—Over 600 stock items with complete technical descriptions are listed in fully indexed catalog of electronic transformer applications. Among high fidelity transformers described are the Remote Standard series, Hiperm Alloy series, the Ultra Compact and the Ouncer Series. Large group of hermetic sealed units for military uses is also listed.

▲ For more details circle NED-2981 on enclosed inquiry slip ▲

A Thrifty Pair for Air!

MASONEILAN'S NO. 71 REDUCING VALVE AND NO. 61 FILTER

Together these sturdy new Masoneilan Air Reducing Valves and Air Filters provide all that's needed to keep air clean and pressure uniform. Their extra rugged construction reduces maintenance, increases service-life.

For initial pressures up to 250 psi. Reduced pressures 5—60 psi; 60—100 psi. Sizes ¼" to ½". Pressure gauge included. Sold separately or in combination.

See your Mason-Neilan Industrial Distributor

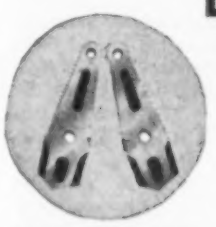
MASON-NEILAN REGULATOR CO.
1189 ADAMS STREET, BOSTON 24, MASS., U. S. A.

▲ For more details circle NED-2982 on enclosed inquiry slip ▲

Model 30-MCC

DOUBLE BLADE LIFE

MANCO MILL-TYPE CUTTER WITH REVERSIBLE JAWS



Jaws reversible to provide second cutting edge. Jaws alone available to fit standard 30" bolt cutters.

New exclusive Manco bolt cutter design gives you twice the cutting life from one set of jaws. **Handles** are tough drop forgings **—guaranteed against breakage.** Completely streamlined. Available in 30" size. Capacity ½" bolts—⅜" rod.

STEEL STRAPPING CUTTER GETS UNDER TIGHTLY BOUND STRAP

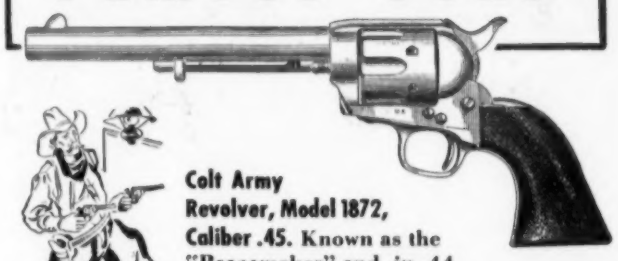
New fast-action strap cutter. Light weight—only 1 lb. yet extremely durable all tool-steel construction. Capacity for ¾" x .035 strap.

See Your Industrial Distributor, or write Dept. NED-11

MANCO MFG. CO.
BRADLEY, ILL.

▲ For more details circle NED-2983 on enclosed inquiry slip ▲

Famous Guns

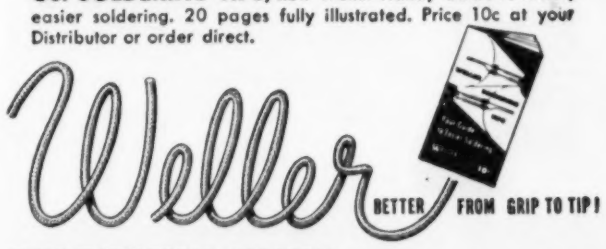


Colt Army Revolver, Model 1872, Caliber .45. Known as the "Peacemaker" and, in .44 caliber, the "Frontier" revolver. This famous Colt was *the law west of the Mississippi!* Weight and ruggedness made it a convenient means of administering a "pistol whipping".

Model 1808 Navy Pistol, Caliber .64, made by Simeon North of Berlin, Conn. Boarding pistols like this rendered valuable service in the War of 1812. In building them, North actually used a modern mass production technique *—standardized parts!*

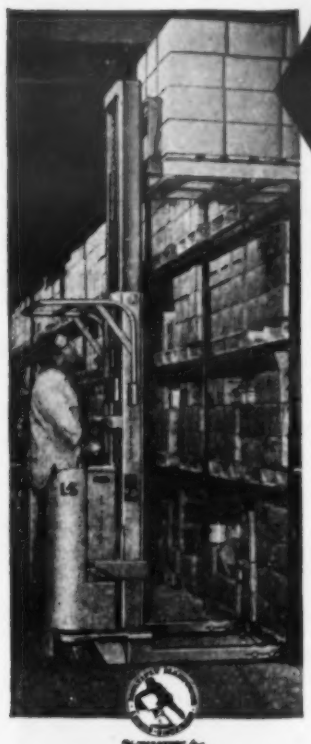
Weller Instant-heating Soldering Gun for light or heavy work. Dual heat greatly increases tip life. Switch instantly to high or low heat as job requires. Pre-focused spotlights end "blind soldering". Exclusive tip-fastening arrangement assures full, constant heat. High-impact plastic housing. Perfect balance. Low-cost replaceable tips. Pays for itself in a few months. See at your Distributor or write for Bulletin direct.

Get SOLDERING TIPS, new Weller Handy Guide to faster, easier soldering. 20 pages fully illustrated. Price 10c at your Distributor or order direct.



SOLDERING GUNS 809 Packer Street, Easton, Pa.
The Finest Soldering Tool for the Finest Craftsmen

▲ For more details circle NED-2984 on enclosed inquiry slip ▲



Increase your storage space 40-50%

New Lewis-Shepard Trucks, like this Spacemaster Model "M", right angle stack *in less than 6 foot aisles.* This means the usual 10 to 12 foot aisles can be reduced at least 40% *making extra space for storage.* And, the Model "M"'s unique design permits weight and dollar savings, too! Weighs and costs only *half* as much as standard electric fork trucks. Yet, throughout, it retains the quality construction for which Lewis-Shepard is famous:

1. Greater work-capacity
2. Faster hauling and lifting speeds
3. Safer reverse operation
4. Smoother, timed acceleration
5. Deadman brake for extra safety

Send for detailed information on this and many other L-S Trucks, riding and "walkie" types, for narrow aisle operation.

LEWIS-SHEPARD® Products, Inc.
932 Walnut St., Watertown 72, Mass.

Nationwide Service — See "Trucks, Industrial" in your Yellow Phone Book

▲ For more details circle NED-2985 on enclosed inquiry slip ▲

WHICH can help improve YOUR Product Finishing?

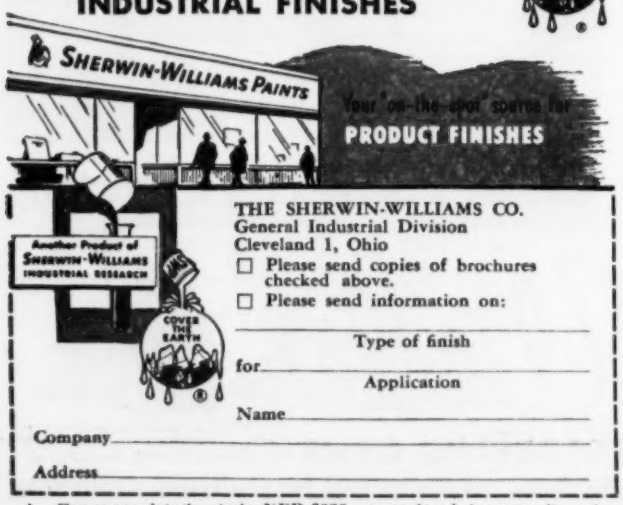
WHAT'S YOUR PROBLEM? Special effects—faster drying—hiding defects? Eliminating primer—reducing inventories—more flexibility of finish for various surfaces and application methods? You'll find the answers to these problems and many others in the following brochures:

- ☐ S-502—Fast-Dri® Synthetic Enamel. Air-dry or bake. For metal or wood products.
- ☐ FB-505—Kem® Fast-Bake Enamel. For metal products. Interior or exterior end-use.
- ☐ KL-511—Kem Lustral® Enamel. Air-dry or bake. Spray, dip, brush. For metal, wood, interior, exterior.
- ☐ L-503—Opex® Industrial Lacquer. Very fast drying. For metal, wood, interior or exterior end-use.
- ☐ AM-514—Kem® Art Metal Synthetic Baking Enamel. A single-coat wrinkle finish, for metal products.
- ☐ D-506—Dimenso® One-Coat. Single-coat system for hammered or opalescent finishes. Air-dry, bake.
- ☐ F-501—Finishing Furniture and Wood Products.

Ask for these and other helpful brochures from your local Sherwin-Williams Branch. Consult your classified telephone directory. Or check brochures you want, and mail with coupon.

Services of trained industrial finish specialists available in your area through nearest Branch

SHERWIN-WILLIAMS
INDUSTRIAL FINISHES



THE SHERWIN-WILLIAMS CO.
General Industrial Division
Cleveland 1, Ohio

☐ Please send copies of brochures checked above.
☐ Please send information on:
_____ Type of finish
for _____ Application
Name _____
Company _____
Address _____

▲ For more details circle NED-2986 on enclosed inquiry slip ▲

New Literature & Catalogs

O-Ring Design & Application

International Packings Corp.—16-page illustrated manual "O-Rings . . . Design, Manufacture and Application" presents comprehensive data on these static and dynamic seals. Properties and characteristics of basic polymers used for O-rings are tabulated.

▲ For more details circle NED-2987 on enclosed inquiry slip ▲

Industrial Tools & Products

Ingersoll-Rand Co.—36-page illustrated pocket-size book "Our Latchstring is Always Out" gives a brief history of the company, its plants and products. Included in the more than 100 products shown are rock drilling equipment, air and electric tools and hoists, air and gas compressors, gas and diesel engines, centrifugal blowers, centrifugal and propeller pumps, vacuum and condensing equipment and refrigerating equipment.

▲ For more details circle NED-2988 on enclosed inquiry slip ▲

Process Industry Equipment

Allis-Chalmers Mfg. Co.—"Equipment for the Process Industries" is title of 24-page illustrated guide 25B6177G. Described is equipment for such chemical unit operations as fluid flow, air-gas handling, size reduction, dry classification, pyroprocessing, washing and materials handling. Also detailed are process plant electrical apparatus and mechanical transmission equipment.

▲ For more details circle NED-2989 on enclosed inquiry slip ▲

Finishing Magnesium Products

Dow Chemical Co.—"Magnesium Finishing" is revised 128-page manual which describes in detail the surface stability and surface treatment of magnesium. Data are given on cleaning, mechanical finishing, chemical treatments, electroplating, painting and assembly protection for magnesium alloy die castings, sand and permanent mold sand castings, and for sheet, plate and extrusions.

▲ For more details circle NED-2990 on enclosed inquiry slip ▲

How To Use Locknuts

Industrial Fasteners Institute—Pointers on how to use locknuts most effectively are contained in 24-page illustrated bulletin "Locknuts." Described are 36 representative types of locknuts, together with details on their principles of operation. Names of manufacturer and data on why certain types are best suited for each application are given.

▲ For more details circle NED-2991 on enclosed inquiry slip ▲

Heavy Engineered Equipment

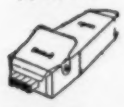
Pandjiris Weldment Co.—Hydraulic tube bender, 20-ton pallet type conveyor, hydraulic skip hoist, roll transfer cars, welding positioners and production lathes are some of the heavy duty equipment engineered to specific requirements that are briefly described in 4-page illustrated bulletin EE-10.

▲ For more details circle NED-2992 on enclosed inquiry slip ▲

ACROMARK MEANS "ACCURATE MARKING"

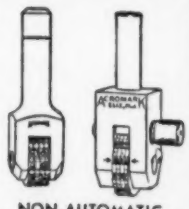
MARK— with NAME-PLATE & PARTS STAMPING MACHINES

STEEL LETTER & FIGURE STAMPS



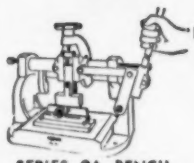
HERCULES HOLDERS & TYPE

NUMBER— with



NON-AUTOMATIC NUMBERING MACHINES

AUTOMATIC NUMBERING HEADS



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POWER DRIVEN MARKING MACHINES

STEEL HAND STAMPS

WRITE FOR LATEST LITERATURE AND PRICE LISTS

The ACROMARK Company
7-11 MORRELL ST., ELIZABETH 4, N. J.

▲ For more details circle NED-2993 on enclosed inquiry slip ▲

HARD RESURFACER FOR CONCRETE

FLINTZ Will bounce a steel ball!

- Will hold a dead, smooth, even surface for life.
- Requires no cutting of underfloor.
- Only preparation is cleaning!

We are currently placing 350 drums in one plant of a world-wide concern. We sell FLINTZ by the drum . . . or will contract the entire job.

"KEEP 'EM ROLLING"

Write today for FLINTZ booklet, "Keep 'Em Rolling" for full details, or address inquiries to:

DURA-TRED CO. FLINTZ DIV.
357 N. CENTRAL PARK BLVD. • CHICAGO 24, ILLINOIS

▲ For more details circle NED-2994 on enclosed inquiry slip ▲

ELECTRIC and PHOTO-ELECTRIC COUNTERS for every job

Count Anything—Anywhere

parts, sheets, bottles, cans, boxes—measure lengths of wire, rope, tape.

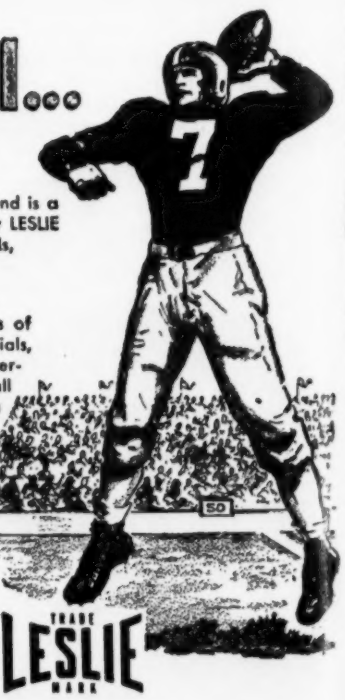
STOP GUESSWORK — *Eliminate labor and error of hand counting.*

PIC makes electric counters for every purpose. Standard, dustproof and panelmounting heavy duty types; small, low cost types; automatic batch counters; complete line of electric counter actuators. Tell us what you want to count or send for catalog.

PRODUCTION INSTRUMENT COMPANY
700-12 W. Jackson Blvd., Chicago 6, Ill.

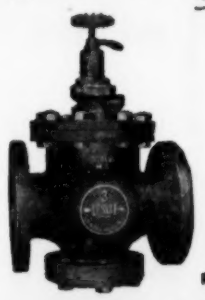
▲ For more details circle NED-2995 on enclosed inquiry slip ▲

Dependable Control...



The same unerring control that directs a pass into the waiting arms of a speeding end is a "built-in" advantage of every LESLIE Regulator. In automatic controls, as in sports, it's quality that makes the difference.

The fundamental principles of quality design, quality materials, quality manufacture, quality performance and quality service all combine to make LESLIE a logical choice for long-lasting accurate, trouble-free pressure, temperature, or liquid level control.



Class L-3 Pressure Reducing Valve

TRADE LESLIE MARK

Write for illustrated bulletin

LESLIE CO. 227 Grant Avenue Lyndhurst, New Jersey

"QUALITY" REGULATORS FOR OVER HALF A CENTURY

▲ For more details circle NED-2996 on enclosed inquiry slip ▲

Facts about Magnetic Separation and how it Pays Off

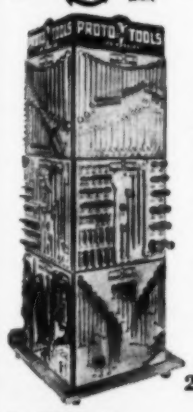
Write for BULLETIN 56

Here is full information on how FRANTZ permanent magnet FERRO-FILTERS remove ferrous particles and chips from coolants and lubricating oils. It tells how you can save wear on tools . . . get better finishes and more production . . . protect surfaces subject to wear. FERROFILTERS available for trial on our Rental Plan.

S. G. FRANTZ CO., Inc.
P. O. Box 1138 • Trenton 6, N. J.

▲ For more details circle NED-2997 on enclosed inquiry slip ▲

Sir Launcelot Wins All His Duels ...'cause PROTO means PROfessional TOols!



One reason why PROTO tools are *professional* tools is that they are made from superior PROTO-specified alloy steels. Known as PROTOLOY, these special alloy steels provide great strength, hardness, toughness—and extra long life. Scientific heat treatment, advanced designs, accurate manufacture, a meaningful guarantee and completeness of line are more reasons why experts prefer PROTO. For truly *professional* tools, see your PROTO dealer. Send 10¢ for 68-page catalog to

PLOMB TOOL COMPANY
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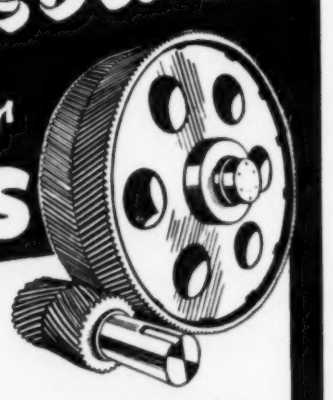
5283

The PROTO Line includes Wrenches, Pliers, Screwdrivers, Punches, Chisels, Sockets & Handles, and Many Others.
Eastern Factory—Jamestown, N.Y.

PROTO TOOLS LOS ANGELES

▲ For more details circle NED-2998 on enclosed inquiry slip ▲

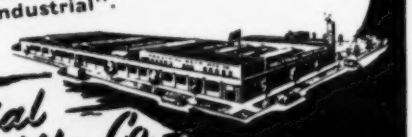
Come to Industrial For Your GEARS



Herringbone • Spur • Helical • Angular • Internal • Bevel • Mitre • Worms • Worm Wheels, etc.

Our plant is fully tooled to produce specification-cut Gears of all types including splining and sprockets cut from your stock or furnished complete . . . meeting your service and precision standards.

Visit our large modern plant pictorially—Write for interesting Brochure "A trip through Industrial".



Industrial Gear Mfg. Co.
4541 W. VAN BUREN ST.
CHICAGO 24, ILL.

▲ For more details circle NED-2999 on enclosed inquiry slip ▲

New Literature & Catalogs

Carbon-Graphite Products

Pure Carbon Co.—Technical data on properties, descriptions of available grades, methods of attachment, table of average characteristics and chart of expansion of various metals as compared with Purebon comprise 32-page illustrated catalog No. 52. Use of carbon-graphite materials for bearings, seal rings and shaft packings; pistons and piston rings; pump and compressor blades; valve seats; trolley wheels and shoes is described.

▲ For more details circle NED-3000 on enclosed inquiry slip ▲

Controlling Industrial Dermatitis

West Disinfecting Co.—How to control skin diseases created by job hazards is subject of 32-page manual "The Control of Dermatitis in Industry." It points out that 90 per cent of the industrial dermatitis cases can be prevented by proper cleansing methods and materials plus correct supervision and instruction. In addition to discussing causes of dermatitis, various products developed to prevent this disease are described.

▲ For more details circle NED-3001 on enclosed inquiry slip ▲

Welding, Brazing, Soldering, Tinning & Cutting

All-State Welding Alloys Co.—32-page illustrated booklet is buyer's guide to alloys and fluxes for welding, brazing, soldering, tinning and cutting. Products are available for use on assemblies or production involving steel, aluminum, cast iron, copper, magnesium, nickel, zinc die castings, stainless steel and nonferrous alloys.

▲ For more details circle NED-3002 on enclosed inquiry slip ▲

Belt Conveyor

Goodman Mfg. Co.—Though especially designed for shuttle car gathering in low coal, type 98 belt conveyors described in 4-page illustrated catalog CC-522 are adaptable to other low-headroom uses. They are available in 30 and 36-in. belt widths.

▲ For more details circle NED-3003 on enclosed inquiry slip ▲

Wiring Devices, Lamps & Specialties

Eagle Electric Mfg. Co.—Over 1400 electrical wiring devices, lamps and specialty products make up the 48 pages of the "1952-53 Eagle Catalog." Prices and specifications are given on such items as sockets, switches, extension and cord sets, fuses, lamps, wall plates, push buttons, outlets, nichrome wire, heater elements and other accessories.

▲ For more details circle NED-3004 on enclosed inquiry slip ▲

Barrel Plating & Processing

Frederic B. Stevens, Inc.—Automatic barrel plating and processing machines and recent engineering developments in field of automatic barrel plating are described and illustrated in 8-page catalog No. 60. It explains several special applications for the machines.

▲ For more details circle NED-3005 on enclosed inquiry slip ▲

TO REACH HIGH PLACES SAFELY...

This illustrated folder describes the complete line of Ballymore ladders that are saving time and money and increasing capacity of storage space in business and industry. Send for your free copy today.

BALLYMORE COMPANY
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Name_____
Company_____
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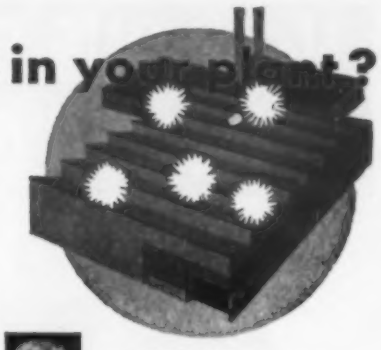
City_____ Zone_____ State_____

▲ For more details circle NED-3006 on enclosed inquiry slip ▲

hot spots in your plant?



specify REFRASIL

Play safe! Use REFRASIL to eliminate dangerous "hot spots" in your plant. REFRASIL provides a temperature drop from 1200°F. to 300°F.... ½" foil blanket withstands sustained exposure to extreme temperatures. REFRASIL is easy to install—easy to remove. So play safe—specify REFRASIL for your high temperature insulation problems.

REFRASIL, light in weight and versatile in use, is available in a variety of physical forms to meet virtually any insulation need—see illustrations at right.

use REFRASIL for...

Ducts carrying high temperature liquids. (Refrasil Blankets)
Electric ovens. (Refrasil batt or bulk fibers)
Laboratory Equipment. (Refrasil cloth and batt)
Thermocouple wires. (Refrasil sleeving)
Filtration. (Refrasil bulk fibers)

REFRASIL REPRESENTATIVES:
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Midwest: Burnie L. Weddle, 3219 West 29th St., Indianapolis 22, Ind.—Hickory 8685

CONSULTATION SERVICE
Attach this ad to your letterhead and mail to nearest REFRASIL *Representative for consultation service—at no charge.*

HITCO
THE H. I. THOMPSON COMPANY
1739 CORDOVA STREET
LOS ANGELES 7, CALIF.

▲ For more details circle NED-3007 on enclosed inquiry slip ▲

a Wealth of Technical Data on B&W STAINLESS TUBING for Pressure and Mechanical Uses

CHECK—CLIP—AND MAIL this listing for free copies

- ☐ TB-1 Properties and Methods of Working Seamless and Welded Tubing and Pipe of the B&W Stainless Croloys
- ☐ TB-11 Specifications for Seamless and Welded Tubular Products—Stainless, Alloy, and Carbon Steels
- ☐ TB-19 B&W Stainless Croloy Tubing Steels—Seamless and Welded, Condensed Technical Data
- ☐ TB-332 B&W Stainless Pipe, Seamless or Welded
- ☐ TB-335 Descriptive Terms, Steel Tubing
- ☐ TB-344 Applications of B&W Tubular Products—Stainless, Alloy, and Carbon Steel, Seamless and Welded
- ☐ TR-506 Properties and Characteristics of 27% Chromium-Iron
- ☐ TR-516 Some Experiences in Service
- ☐ TDC-130 B&W Stainless Pipe and Tubing, Croloy 18-8S (Type 304)
- ☐ TDC-132 B&W Stainless Pipe and Tubing, Croloy 18-8Cb (Type 347)
- ☐ TDC-133 B&W Stainless Pipe and Tubing, Croloy 16-13-3 (Type 316)
- ☐ TDC-134 B&W Stainless Pipe and Tubing, Croloy 25-20 (Type 310)
- ☐ TDC-138 B&W Pipe, Seamless and Welded—Carbon, Alloy, and Stainless Steels—Dimensions, Weights, Specifications, Grades, Analyses
- ☐ TDC-140 B&W Stainless Pipe and Tubing, Croloy 12 Al (Type 405), Croloy 18 (Type 430), Croloy 27 (Type 446)
- ☐ TDC-143 B&W Stainless Tubing, Croloy 12 (Type 410), Croloy 12-2 (Type 414)
- ☐ TDC-148 Condensed Data on Working Seamless or Welded Tubing and Pipe—B&W Croloy Stainless Steels.
- ☐ TA-1517 B&W Stainless Steel Tubing for the Food Processing Industry
- ☐ TB-328 How to Keep Down Maintenance Costs in Pulp and Paper Mills—B&W Tubing and Pipe, Stainless, Alloy, and Carbon Steels

THE BABCOCK & WILCOX COMPANY
TUBULAR PRODUCTS DIVISION
General Offices & Plants
Beaver Falls, Pa. — Seamless Tubing, Welded Stainless Steel Tubing
Alliance, Ohio — Welded Carbon Steel Tubing

B&W SEAMLESS and WELDED TUBES

▲ For more details circle NED-3008 on enclosed inquiry slip ▲

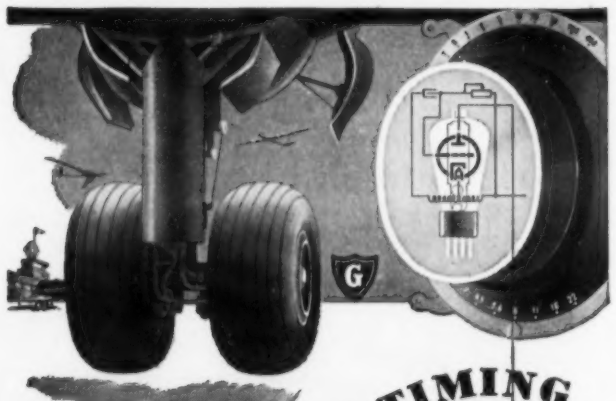
Here's ONE Expense you CAN Cut 75%!

...It's the cost of keeping factories, warehouses, yards and parking areas swept. With 1 WILSHIRE Power Sweeper, you can sweep 6 to 38 times faster than by hand. Plenty of power to climb ramps. Pays for itself in as little as 15 weeks.

Write for the name of your nearest WILSHIRE Distributor who will gladly give you a Free Demonstration.

WILSHIRE POWER SWEEPER CO.
516 WEST CHEVY CHASE DRIVE • GLENDALE 4, CALIFORNIA
IN CANADA—PLANT MAINTENANCE EQUIPMENT CO.—VANCOUVER, TORONTO

▲ For more details circle NED-3009 on enclosed inquiry slip ▲



LANDING OR TIMING

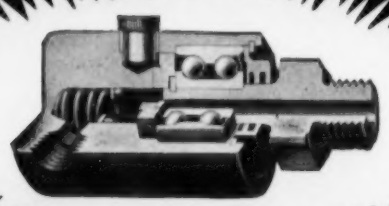
Relays BY GUARDIAN

For dependable operation of landing gears, leading airplane manufacturers specify Guardian sealed solenoid contactors. In many more control applications for military and civilian airplanes, Guardian units are familiar favorites. Outstanding industrial applications of Guardian Relays include electronic timing of camera shutters or controlling intervals in welding and plastic molding, or measuring speeds beyond the capacity of mechanical means using the fast-acting Series 165 D.C. Guardian Relay with a capacitor and an adjustable resistor connected to the grid of a "trigger" type tube. Cost-free advice on *your* application is yours for the asking. Write.

GUARDIAN ELECTRIC
1626-M W. WALNUT STREET CHICAGO 12, ILLINOIS
A COMPLETE LINE OF RELAYS SERVING AMERICAN INDUSTRY

▲ For more details circle NED-3010 on enclosed inquiry slip ▲

FAWICK ROTORSEALS
Performance Proved in
THOUSANDS OF INSTALLATIONS



Machine problems requiring transmission of air or liquids from stationary to rotating machine members are best solved with FAWICK ROTORSEALS.

Precision ROTORSEALS are available in single and multiple passage units, insuring dependable sealing of air, liquids or gases under pressure. They are equally effective in vacuum applications and may be operated continuously or intermittently in either direction.

FAWICK AIRFLEX CO., INC.
9919 CLINTON ROAD • CLEVELAND 11, OHIO

For complete information on a FAWICK ROTORSEAL to suit your specific application, write to the Home Office, Cleveland, Ohio.

FAWICK Airflex
INDUSTRIAL CLUTCHES AND BRAKES

▲ For more details circle NED-3011 on enclosed inquiry slip ▲

New Literature & Catalogs

Ladder & Scaffold Selector

Patent Scaffolding Co.—A practical guide to selection and use of ladders and scaffolds for off-the-ground plant maintenance operations is entitled "Controlling Costs When Maintenance Goes Above Arms Reach." Bearing No. G-205, this bulletin of 8 pages details basic factors and conditions to be considered in determining the most efficient equipment for a particular job. Work is broken down into four categories.

▲ For more details circle NED-3012 on enclosed inquiry slip ▲

Link Chain Sprocket Wheels

Link-Belt Co.—Over 200 sizes of cast tooth sprocket wheels for 78 popular types and sizes of link chains, including the Ewart Link-Belt, class 400 pintle, class SS bushed roller, class H pintle and class C combination chain, are tabulated in 8-page booklet 2467. Both arm-center and plate-center wheels, in gray iron or abrasion-resistant Flint-Rim, are available from stock.

▲ For more details circle NED-3013 on enclosed inquiry slip ▲

Wire Rope Use & Care

A. Leschen & Sons Rope Co.—"Use and Care of Wire Rope" is up-to-date 72-page pocket guide to better wire rope service. Information in it covers proper handling methods, reeving, breaking in, splicing, cutting, lubricating and specifying. Over 50 illustrations and 32 diagrams and charts demonstrate and explain recommendations for proper wire rope use and care.

▲ For more details circle NED-3014 on enclosed inquiry slip ▲

Industrial Cork Products

Dodge Cork Co.—Cork structure, natural cork products, cork compositions, physical characteristics and typical products made from cork comprises information contained in 4-page illustrated bulletin. It also features tabular data on density, tensile strength, compression and coefficient of friction of natural cork, and gives sheet sizes, thicknesses and Dodge government equivalents on typical cork compositions.

▲ For more details circle NED-3015 on enclosed inquiry slip ▲

Laboratory Equipment

Daven Co.—There are 32 pages in this catalog containing illustrations, descriptive copy, technical data and diagrams for such laboratory equipment as attenuation networks, decade resistance boxes and individual resistance units, volume level indicators, transmission measuring sets, noise and distortion meters and output power meters. Complete specifications, too.

▲ For more details circle NED-3016 on enclosed inquiry slip ▲

Slotted & Phillips Head Screws

Southern Screw Co.—Wood screws from 3/16-in. long by No. 0 diameter to 6 in. long by No. 30 diameter are described, illustrated and priced in 12-page catalog. Also included are vital statistics on wood screws, photographs on how screws are made and a full scale size chart of actual screws, showing the entire range made.

▲ For more details circle NED-3017 on enclosed inquiry slip ▲

Industrial Filters

Industrial Filtration Co.—Sizes, capacities and performance characteristics of Delpark endless belt type filter and Delpark disposable type filter are found in 8-page folder. Physical construction, specifications, ratings, dimension and photographs are included.

▲ For more details circle NED-3018 on enclosed inquiry slip ▲

Industrial Dust Control

W. W. Sly Mfg. Co.—Dynaclone cloth screen dust filter systems for venting continuous dust-creating operations are subject of 8-page illustrated bulletin 102. Continuous dust removal feature assures constant suction without mechanical shaking. Capacities of units range from 400 to 16,900 cfm.

▲ For more details circle NED-3019 on enclosed inquiry slip ▲

Heat Treating Equipment

Pressed Steel Co.—24-page illustrated general catalog No. 52 shows installation views of containers, fixtures and retorts used in carburizing, annealing and other heat treating operations. Also described are various types of tubing for annealing, firing radiant furnaces, venting noxious gases and protecting thermocouples.

▲ For more details circle NED-3020 on enclosed inquiry slip ▲

Let AQUA Control Scale Formation in Your Water

"JUST PLUG IT IN." NO CHEMICALS TO BUY, MIX AND APPLY. NO SHUT-DOWNS FOR CLEANING AND REPAIRING. NO 'HUMAN WATCH DOG.'

★ ★ ★

The AQUA unit controls scale formation in water so completely that you get no worse than a soft scale or sludge easily flushed out. Usually, present scale gradually dissolves . . . Simplicity itself! Water passes through an electrical field. The colloidal particles and dissolved salts become electrically charged and hence repellent to surrounding metal surfaces. No chemical change—just physical. Efficient—proven—less fuel, lower maintenance—costs no more than an electric clock to operate. Get the details *NOW*.

Ask for Bulletin "N-11."

AQUA ELECTRIC SCALE CONTROL, INC.
PLYMOUTH BUILDING, CLEVELAND 15, OHIO

▲ For more details circle NED-3021 on enclosed inquiry slip ▲

Lighter... **TOUGHER**

COFFING **CHALLENGER** SPUR-GEAR HOIST

Never before such rugged shock-resisting strength and easy portability in a spur-gear hoist!

CARRY IT EASILY, set it up anywhere—1-ton model weighs only 39½ lb.

ALL STEEL, even the case—takes abuse as only steel can.

Find out more about the completely new spur-gear hoist that's lighter, stronger, easier to handle. Write for bulletin X11CH.

COFFING HOIST CO., Danville, Illinois

Quik-Lift Electric Hoists • Hoist-Alls • Safety-Pull Ratchet Lever Hoists • Mighty-Midget Pullers • Differential Chain Hoists • Load Binders • I-Beam Trolleys

Sold by industrial distributors everywhere.

▲ For more details circle NED-3022 on enclosed inquiry slip ▲

AERO-SEAL WORM-DRIVE HOSE CLAMPS

WON'T SHAKE LOOSE!

Use of stainless steel subject to government regulations.

Wherever you have to clamp a hose connection tight . . . or wherever you want to lock two objects of any shape together in an unshakeable bond . . . your best bet is AERO-SEAL.

Threads of steel worm engage deep into slots in stainless steel band—hold tight under extreme vibration in automotive, aircraft and industrial applications. CAN'T SHAKE LOOSE.

One-Hand Installation

Install an Aero-Seal any place you can reach with thumb and one finger. Self-feeding when band engages worm threads. Thumb-grip and screwdriver types.

Re-use Again and Again

When hose is worn you RE-USE the same Aero-Seal again and again. RE-USE Aero-Seals on temporary clamping jobs—they conform to any shape without damaging band.

"Aero-Seal"® WORM DRIVE **HOSE CLAMPS**

ANOTHER BREEZE MARK PRODUCT

BREEZE CORPORATIONS, INC.
41 South Sixth St. Newark, N. J.

▲ For more details circle NED-3023 on enclosed inquiry slip ▲

save accidents
save money on the

safety level

. . . and enjoy the safety of the greatest feature ever built into a ladder—the Dayton "safety level" working platform. Check the "big 6" features that make a Dayton your best buy!

1. Rail guarded "safety level" platform.
2. Locks in place automatically.
3. Rubber safety shoes.
4. Light weight—great strength.
5. Economically priced.
6. Complete size range 3' to 16' in height.

Write Dept. E for Bulletin

Dayton safety ladders

Dayton safety ladder co.
2339 Gilbert Ave., Cincinnati, O

In Canada:
Safety Supply Co., Toronto

▲ For more details circle NED-3024 on enclosed inquiry slip ▲

BROOKS SINCE 1876 *Laboratory Developed*

PLANT TESTED
WATER TREATMENT SERVICE
IS COMPLETE

Write for Descriptive Technical Data

- ✓ Boiler Water Treatments
- ✓ Water Line Treatments
- ✓ Cooling Water System Treatments
- ✓ Brine System Treatments
- ✓ Waste Water Treatments
- ✓ Zeolite Softener Treatments
- ✓ Consulting Service

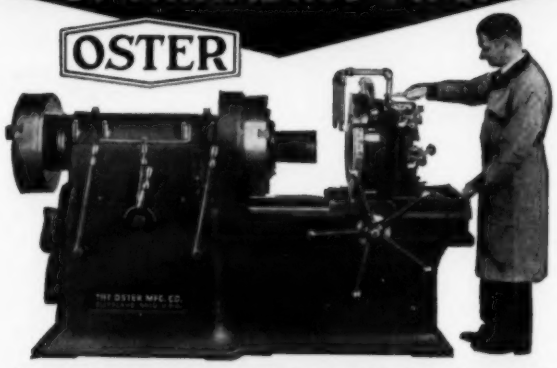
Brooks stands ready to correct any water difficulty you have...large or small...from *raw* water coming in, to *waste water* going out. Brooks Service Engineers are available anytime, anywhere for consultation, without obligation.

BROOKS Chemicals, Incorporated
3304 East 87th St. Cleveland, Ohio
Plants at CLEVELAND, OHIO and HAMILTON, ONTARIO
Offices in Principal Industrial Cities
QUALITY SERVICE
THROUGH SCIENTIFIC RESEARCH

▲ For more details circle NED-3025 on enclosed inquiry slip ▲

SLASH YOUR COSTS OF THREADING PIPE!

OSTER



HIGH SPEED PIPE MACHINES

Reduce your costs of threading and cutting pipe with Oster "RAPIDUCTION" machines. Model No. 6-A covers the 1" to 6" pipe range and the 1" to 4" bolt range. Model No. 8 has a standard pipe range of 2½" to 8".

A single, quick-opening, adjustable die-head, with one set of holders, covers the entire range of each machine. Write for free catalog bulletin "LIST NO. 9-C" which explains Oster "RAPIDUCTION" features.

THE OSTER MFG. CO.
2066 EAST 61st STREET
CLEVELAND 3, OHIO

▲ For more details circle NED-3026 on enclosed inquiry slip ▲

New Literature & Catalogs

Rubber-Lined Sand Pumps

Denver Equipment Co.—Features, specifications, construction, operation, sectional views, dimensions and general information on SRL rubber-lined sand pumps are contained in 20-page illustrated bulletin No. P9-B8. Table on specific gravity, water friction capacities and motor selection are included, along with instructions for selection, installation, operation and maintenance.

▲ For more details circle NED-3027 on enclosed inquiry slip ▲

Transformers & Reactors

Southwestern Industrial Electronics Co.—Input, interstage and output transformers and reactors are the subjects of 8-page illustrated brochure. Features include high inductances, small size, low frequency response, vacuum impregnation, hermetic sealing and dual coil construction. Complete specifications, general data and information on special units are included.

▲ For more details circle NED-3028 on enclosed inquiry slip ▲

Stabilized Quartz Crystals

James Knights Co.—Forty-five different crystals for use in communication equipment, laboratory instruments, industrial equipment, etc., are listed in this catalog on stabilized quartz crystals. Applications range from two-radio communication for airlines to crystal-controlled transmitter affixed to harpoons for directing whaling vessels to the spent whale.

▲ For more details circle NED-3029 on enclosed inquiry slip ▲

Control Valve Design

Conoflow Corp.—"New Techniques in Control Valve Design" is comprehensive 16-page technical bulletin which deals with pneumatic final control elements. Explained are the underlying reasons behind today's designs and the logic behind the predicted designs for the future.

▲ For more details circle NED-3030 on enclosed inquiry slip ▲

Solderless Electric Connectors

Aircraft-Marine Products, Inc.—"The Harrisburg Story" is dramatically illustrated 20-page book which describes the origin, growth, business philosophy and engineering principles of this firm. Company is primarily concerned with the engineering and production of completely installed wire terminations or solderless terminals.

▲ For more details circle NED-3031 on enclosed inquiry slip ▲

Hydraulic Couplings

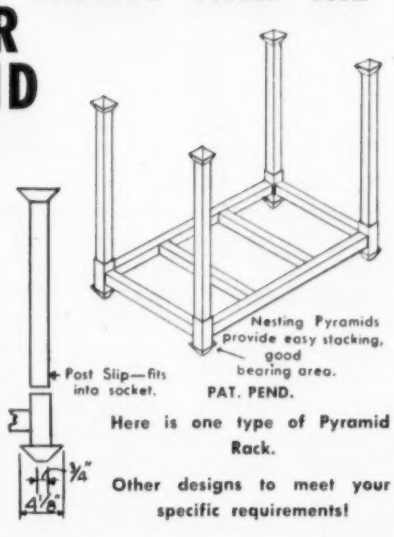
Twin Disc Clutch Co.—Smooth is the word for the way a new disconnecting hydraulic coupling operates. It combines the shock-absorbing features of a fluid drive with the disconnecting advantages of a master clutch. Made in sizes from 35 to 450 hp in 21-in. diameter and 65 to over 600 hp in 27-in. diameter, coupling is subject of "Maintenance Manual" No. 500.

▲ For more details circle NED-3032 on enclosed inquiry slip ▲

SAVE MORE TIME AND MONEY IN MATERIAL TIERING WITH THE PALTIER PYRAMID RACK

Exclusive *self*-aligning feature makes stacking quick and easy.
All steel units insure safety.

DESIGNED FOR YOUR PARTICULAR REQUIREMENTS.
All Paltier pyramid racks are designed to meet your requirements regarding load capacity, dimensions, special framing and decking. Posts slip-fit into sockets, are easily removed and can be replaced with posts of other lengths.



Here is one type of Pyramid Rack.

Other designs to meet your specific requirements!

NESTING PYRAMIDS—available for YOUR RACKS
Paltier will furnish the self-aligning, nesting pyramids at reasonable prices for welding to your equipment. Fits any size post up to 3½ inches square.

SEND TODAY—FOR NEW FREE CATALOG DESCRIBING THE PALTIER SYSTEM FOR BETTER MATERIAL HANDLING

The PALTIER Corp.
1701 Kentucky St.
Michigan City, Ind.

▲ For more details circle NED-3033 on enclosed inquiry slip ▲

NEW SKINNER SOLENOID VALVE

EXPLOSION PROOF TYPE X5

THE new Skinner X5 Solenoid Valve is basically the same as the widely accepted and tested V5, but modified to a construction that is Underwriters' approved for Class I, Group D hazardous locations. Small size and lightweight features are retained, and the X5 is low in price because of the many parts which are interchangeable with other Skinner valves. Rating is 10 watts max.; soft, spring loaded seals prevent leakage; internal parts are stainless steel; wide variety of port locations in ⅛" and ¼" size; most types available for metering; for AC or DC in a wide range of voltages and frequencies; can be mounted in any position; supplied as two-way normally open or closed, three-way normally open, closed or directional flow. *Write today for details!*

SKINNER ELECTRIC VALVES DIV.
THE SKINNER CHUCK COMPANY
135 Belden Ave., Norwalk, Conn.

▲ For more details circle NED-3034 on enclosed inquiry slip ▲

SUNNEN HONING MACHINES
"Accuracy at Low Cost"

You Can Hold Tolerance and Obtain Desired Surface Finish in a Single Honing Operation

Frequently production can be stepped up, as on this cast bronze main bearing for outboard motors, by using a single honing operation to obtain the required size and surface finish.

PROBLEM: To hold a tolerance of +.0003", −.0000" and produce a surface finish of 10-18 micro-inches, at a satisfactory production rate.
MATERIAL: Cast Bronze
HOLE DIAMETER: 1.005"
HOLE LENGTH: 1 5/16"
STOCK REMOVAL: .0007"
PREVIOUS OPERATION: Boring. Hole is interrupted by an oil groove.

SOLUTION: Sunnen Model MBB-1290 Honing Machine, with "K" type Honing Unit. Machine was installed and in operation in less than 45 days after original inquiry.

RESULTS: Motors run smoother, quieter — bearings last longer — rejects cut to practically nothing. Production rate stepped up to *one part every minute.*

Sunnen Honing is showing similar results on hundreds of different parts in leading plants across the country. It is accurate, easy to use, fast—often does the job when nothing else will. On short runs you can frequently complete the job in less time than it would take to set up for other methods. Average installation costs less than $1,000.

Send for NEW FREE BOOKLET—shows you many different ways Sunnen Honing is helping others—suggests ways it might be helpful in *your* plant.

Let SUNNEN HONING SOLVE YOUR HOLE PROBLEMS

SUNNEN PRODUCTS COMPANY
7970 Manchester Ave., St. Louis 17, Mo.
Canadian Plant: Chatham, Ontario
693R

▲ For more details circle NED-3035 on enclosed inquiry slip ▲

NOW...
FAST, ACCURATE SET-UPS FOR ANGULAR GRINDING

Magna-Lock SINE

WHAT IT IS: An electro-magnetic chuck for making precision angular set-ups on surface grinders. Standard gauge blocks insure maximum accuracy. No dials, no scales. Rugged precision-made hinge is only moving part.

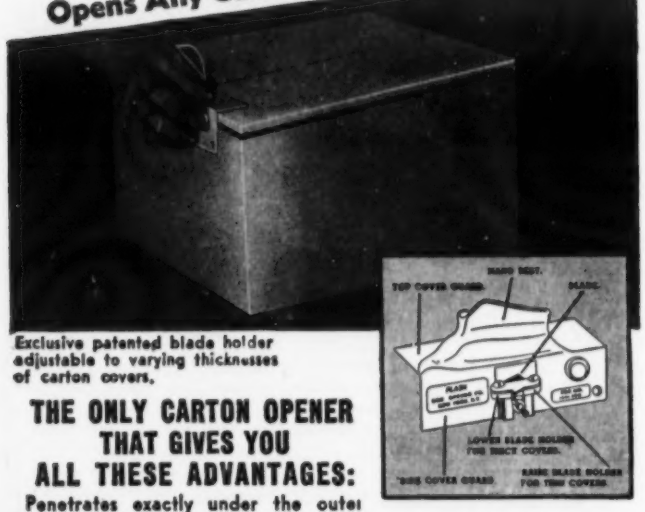
WHAT IT DOES: Single or compound angle set-ups made in minutes. Work held securely . . . powerful magnetic attraction minimizes distortion or warpage during machining operation.

Get full details now. Write Dept. ND-112

MAGNA-LOCK, INCORPORATED
Magna-Lock
Magnetic Chucks and Devices
BIG RAPIDS, MICHIGAN, U. S. A.

▲ For more details circle NED-3036 on enclosed inquiry slip ▲

Amazing
FLASH BOX OPENER
Opens Any Carton Quicker . . . Cleaner



Exclusive patented blade holder adjustable to varying thicknesses of carton covers.

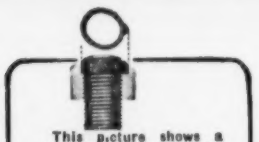
THE ONLY CARTON OPENER THAT GIVES YOU ALL THESE ADVANTAGES:

Penetrates exactly under the outer cover thickness • Protects contents of carton • Cuts clearly to permit re-use • Prevents accidents • Saves time • Eliminates fatigue. Already accepted by leading industries.

Retail Price
$1.75

FLASH BOX OPENER CO., Inc.
52 W. Houston St. • New York 12, N. Y.

▲ For more details circle NED-3037 on enclosed inquiry slip ▲



This picture shows a cross-section of a Security Locknut. The insert, indicated removed, is of high quality, heat treated, alloy spring steel and becomes a permanent part of the nut.
The insert is elliptical in shape and this design causes the retainer to grip the bolt with the terrific tension that only spring steel of great strength could exert and prevent the nut from turning. Simple — dependable—positive!

There is NO OTHER FASTENER LIKE THIS!

Perhaps you believe a cotter pin is the only way to hold anything positively on a shaft. A Security Locknut stays put where you wrench it even in the face of vibration that destroys the bolt.

Security Locknuts permit accurate adjustments with a torque wrench. They are complete as a unit. Nothing to line up. Installation involves only one operation. No holes to weaken the shaft.

Adjusted and readjusted them any number of times. *Removed and re-used them over and over again without impairing their locking power and without damage to the bolt.* If you have a vibration or fastener problem, Security Locknuts may save you money. ⅜ in. to 3 in. bolt sizes. Ask to see the Security Locknut Tests.

SECURITY LOCKNUT CORPORATION
NORTH AVE. & 15th AVE.
MELROSE PARK, ILL.

SECURITY LOCKNUT CORP.
North Ave. and 15th Ave.
Melrose Park, Ill.
Please send me without obligation:
☐ A Thread Tolerance Chart.
☐ We have a fastener problem and would like to know more about Security Locknuts.
Company Name .....
Address .....
Town .....Zone... State....
Signed .....

Security
The Nut You Can't Shake Loose

▲ For more details circle NED-3038 on enclosed inquiry slip ▲

New Literature & Catalogs

Power for Steel

Westinghouse Electric Corp.—36-page revised bulletin B-5443 concisely reviews developments in the application of electric power to the steel industry. It also described the advances being made in present day equipment and processing lines. Among the topics discussed are slip regulators, reversing hot strip and cold reduction mills, x-ray thickness gages and arc furnaces.

▲ For more details circle NED-3039 on enclosed inquiry slip ▲

Electronic Computing

Remington Rand Inc., Eckert-Mauchly Div.—Processing of both numeric and alphabetic data without special coding is possible on the new Univac Fac-Tronic electronic computing system detailed in 20-page illustrated booklet EL109. Roll of metallic tape contains nearly 1.5 million digits or characters in code, and "internal memory" unit retains 12,000 digits or characters at one time. System has uses ranging from statistical problems to solving complex mathematical formulas and for record analysis.

▲ For more details circle NED-3040 on enclosed inquiry slip ▲

Production Machine Tools

Barnes Drill Co.—28-page illustrated bulletin No. 150-C contains performance data and specifications of line of BarnesdriL production machines for multiple or sequence drilling, reaming, boring, facing, tapping and similar operations. Equipment described includes standard units, work transfer equipment, automatic chip disposal, electrical controls and field applications.

▲ For more details circle NED-3041 on enclosed inquiry slip ▲

Fork Truck Operator Manual

Hyster Co.—"How To Operate A Lift Truck" is title of a 24-page manual intended for use in training lift truck operators in safe and efficient operation. Also covered are preventive maintenance, safety and basic materials handling.

▲ For more details circle NED-3042 on enclosed inquiry slip ▲

Locking Fasteners

Lion Fastener, Inc.—Made in one piece, the stud of the Lion fastener locks and unlocks in a spot welded or riveted spring assembly by a quarter-turn. Described and illustrated in 12-page engineering data booklet, it is offered with flush, oval, ring, wing, knurled, notched or thick heads. Installation instructions, tools for installation and other technical data are included.

▲ For more details circle NED-3043 on enclosed inquiry slip ▲

Chemical Proportioning Pumps

Proportioneers, Inc.—Heavy duty Chem-O-Feeder proportioning pumps, available with one, two or three measuring chambers for measuring up to 57 gph, are described and illustrated in 8-page bulletin No. 1225. Specifications and features, plus installation diagrams and list of chemicals fed, are found in this bulletin on the "packaged" units.

▲ For more details circle NED-3044 on enclosed inquiry slip ▲

Special Parts & Fasteners

Camcar Screw & Mfg. Corp.—"There's a New Standard in Fastener Supply!" is title of 8-page illustrated brochure which describes the flexibility of the Camcar cold-flow technique for high volume supply of special parts and fasteners. Besides making Sems, thread-cutters, aircraft hex head sheet metal screw and Phillips head screws, company will make special fasteners and parts to order.

▲ For more details circle NED-3045 on enclosed inquiry slip ▲

Hot Spray Painting

Arco Co.—How the Arco hot spray painting system can fit into your finishing operation is outlined in 12-page illustrated booklet. System utilizes a Control-Temp heater, inserted into existing spray systems or integrated with new production lines, to heat the paint before application. Why the system is used and its operation and installation are detailed.

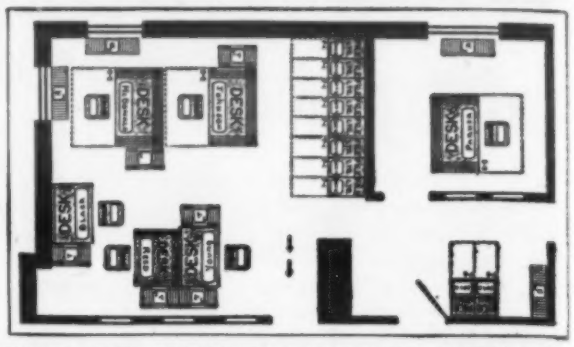
▲ For more details circle NED-3046 on enclosed inquiry slip ▲

Safety Equipment

Boyer-Campbell Co.—You name it, and if it's in the safety line, you'll find it in this 144-page illustrated catalog 100 entitled "Everything for Safety." A few of the items covered are face shields, welding helmets, Skin-Cote liquids and creams, safety clothing, machine guards, fire extinguishers, many types of gloves, instruments and magnifiers.

▲ For more details circle NED-3047 on enclosed inquiry slip ▲

ARE YOU MAKING THE BEST



USE OF YOUR OFFICE SPACE?

High overhead costs make efficient office planning a must. And graphically speaking, CHART-PAK is the answer.

CHART-PAK can help you in your planning by providing a quick, easy, and economical method of making complete layouts.

The CHART-PAK method utilizes two-dimensional templates for office furniture and equipment, tapes for walls, aisles, and partitions, and a ruled plastic layout board. Templates and tapes are self-adhering. Unlike drawn or glued layouts, changes can be made quickly by peeling off pieces and applying new ones.

Using the simple instructions, you or members of your office staff can easily make professional layouts like the one shown above.

The handy $12.50 kit contains over 400 die cut desks, tables, files, etc. This can be your introduction to more efficient office planning.

CHART-PAK also provides complete materials for organization and graphic charts.

For more detailed information write to

CHART-PAK, INC. 104-G LINCOLN AVE. STAMFORD, CONN.

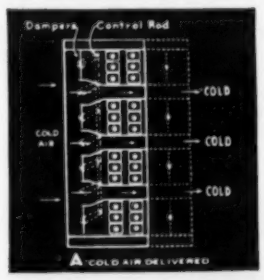
▲ For more details circle NED-3048 on enclosed inquiry slip ▲

The lowest costing lift truck you can buy, the Red Arrow features unusual ease of operation, speed and economy. Maintenance cost practically nil. Machined standardized parts and machined bolted frame . . . eliminate downtime. Pays for itself many times a year in time and manpower saved.
Send for Bulletin 252 Today.

LIFT TRUCKS INC., CINCINNATI 14, OHIO

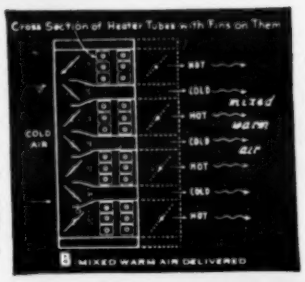
▲ For more details circle NED-3049 on enclosed inquiry slip ▲

FOR FRESH AIR SUPPLY, FOR DRYING
FOR PROCESS HEATING
• WING •
VARIABLE TEMPERATURE
HEATER SECTIONS



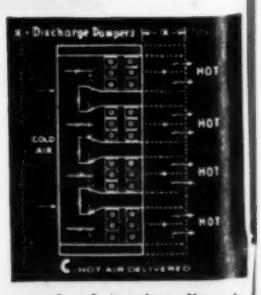
Highest heat transfer efficiency, lowest resistance to air flow, avoid expansion strains.

Cannot freeze even when the entering air is at a very low temperature — because the heating element is always under full steam pressure.



Tubes may be easily repaired or replaced—have leakproof, steamtight joints.

Built-in multiple by-passes insure uniformity of temperature without stratified hot or cold layers. Air streams mix almost instantly. Write for a copy of Bulletin HS-3.



L. J. Wing Mfg. Co.
165 Vreeland Mills Road
Linden, N. J.
Factories: Linden, N. J., Montreal, Canada
Offices in principal cities

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2101	2151	2201	2251	2301	2351	2401	2451	2501	2551	2601	2651	2701	2751	2801	2851	2901	2951	3001	3051	3101
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New Literature & Catalogs

Gas Space Heaters

Reznor Mfg. Co.—The right type of gas-fired heater, whether it's unit, central or duct type, for any specific industrial or commercial space heating application is described in 20-page illustrated catalog GN-52. Heat outputs range from 20,000 to 160,000 Btu, and any number of units can be used to meet needs.

▲ For more details circle **NED-3051** on enclosed inquiry slip ▲

Intermittent Motion Drives

Ferguson Machine & Tool Co.—18-page illustrated reprint of technical article "Designing Cams," which appeared in *Machine Design,* deals with roller gear cam drives which permit high speed indexing or intermittent motion.

▲ For more details circle **NED-3052** on enclosed inquiry slip ▲

Hydraulic Torque Converters

Torcon Corp.—Included in illustrated hydraulic torque converter catalog TC-639 are unit speed selection chart and application data on these drives for all types of heavy duty equipment such as cranes, locomotives, drilling equipment, road machinery, tractors and machine tools. Usable with gasoline or diesel engines, they range in wheel diameter from 11 to 26 in. and output from 30 to 600 hp.

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Electric Impact Hammer & Punch

Black & Webster, Inc.—Details of the improved Electropunch, used to rivet, stake, mark, cut-off, crimp, bend, punch, dimple and perform other operations are given in illustrated data folder. Ranging in price upward from $90.75, this solenoid powered punch press will turn out 5000 pieces per hour with hand or foot switch and as high as 10,000 cycles per hour with automatic switching.

▲ For more details circle **NED-3056** on enclosed inquiry slip ▲

Centrifugal Contactors & Extractors

Podbielniak, Inc.—Mixing, washing, clarifying, neutralizing, decoloring, acid treating, chemical reaction and solvent extraction are but a few of the uses for line of centrifugal counter-current multistage contractors and solvent extractors. These units and typical installations are described in 16-page album No. 10.

▲ For more details circle **NED-3057** on enclosed inquiry slip ▲

Precision Investment Casting

Adapti Co. — "Precision Investment Casting" is title of 4-page technical report on the lost wax process for producing precision parts which require little or no finishing operations. Variety of ferrous and nonferrous metals and alloys which can be cast by this method is listed.

▲ For more details circle **NED-3058** on enclosed inquiry slip ▲

Engineered Conveyors

Prab Conveyors, Inc.—A complete line of specialized conveying equipment is shown in 10-page illustrated catalog 250. Employing a new hinged steel belt, conveyors can be produced to handle practically any type of bulk material or product. Also described are conveyor installations engineered for specific handling operations.

▲ For more details circle **NED-3059** on enclosed inquiry slip ▲

Industrial Equipment

Worthington Corp.—Enlightened information about this company and its products is available in 32-page booklet "A Lot of Things Besides Pumps." Famous cartoonist and humorist Don Herold recently paid a visit to Worthington. He tells what each of 22 products does, how it works and comes up with an entertaining story.

▲ For more details circle **NED-3060** on enclosed inquiry slip ▲

Metallic Bonding Agents

Eutectic Welding Alloys Corp., ChemoTec Div.—48-page illustrated spiral-bound booklet contains procedure sheets and technical data on ChemoTec organic metallic bonding agents, specialized fluxes, surface conditioners and metallic fillers. Characteristics, design information and typical applications of agents which join practically any materials are detailed.

▲ For more details circle **NED-3061** on enclosed inquiry slip ▲

Unit Heaters

American Air Filter Co., Herman Nelson Div.—Both vertical and horizontal shaft unit heaters are described and illustrated in this 48-page bulletin. Component parts and dimensions are covered, as are expanded steam and hot water capacities. Fourteen pages are devoted to selection and application data.

▲ For more details circle **NED-3062** on enclosed inquiry slip ▲

Centrifugal Compressors

American Blower Corp.—When you request illustrated 12-page bulletin No. 109, you will get information on functions, applications, ratings, design features, arrangements and methods of control for single-stage centrifugal compressors, made in a wide range of ratings.

▲ For more details circle **NED-3063** on enclosed inquiry slip ▲

Sensitive Balance

Fisher Scientific Co.—Capable of furnishing readings in 20 seconds or less, the direct-reading single-pan Gram-atic balance is subject of 8-page booklet. Simple six-step weighing procedure, without need for handling weights, is outlined.

▲ For more details circle **NED-3064** on enclosed inquiry slip ▲

Liquid Level Controllers

Moore Products Co.—In 12 illustrated pages, bulletin 2503 presents the operating principle, advantages, detailed specifications, modifications, installation data and how-to-specify information on packless flexible shaft type liquid level controllers.

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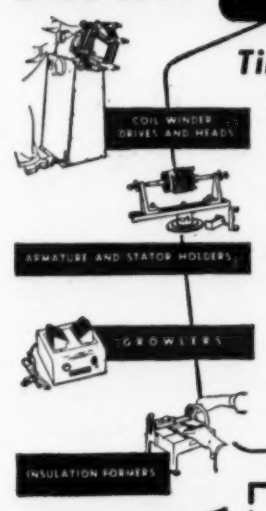
CROWN MOTOR REPAIR SHOP EQUIPMENT



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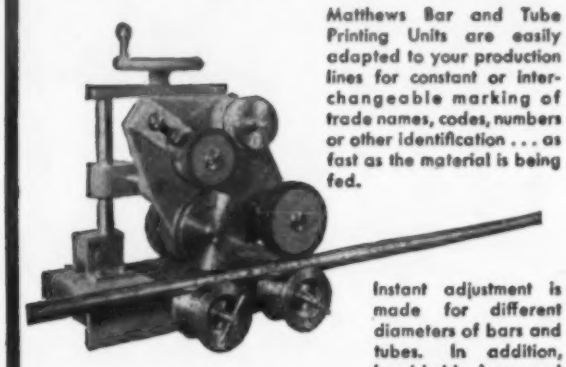

Matthews Bar and Tube Printing Units are easily adapted to your production lines for constant or interchangeable marking of trade names, codes, numbers or other identification . . . as fast as the material is being fed.

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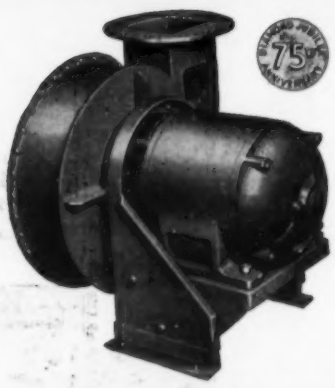
put on the pressure in "tight" spots!



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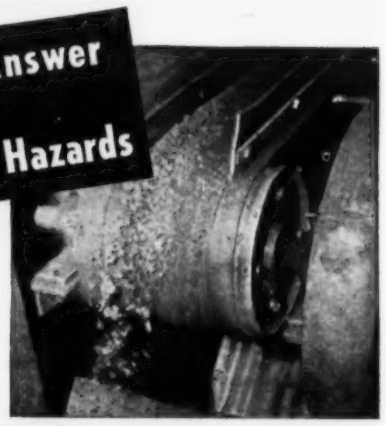

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Dings "HIGH INTENSITY"
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NOVEMBER, 1952

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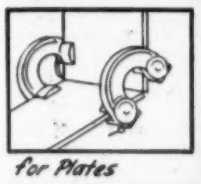
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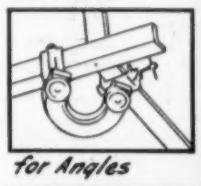
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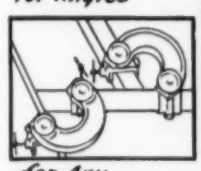
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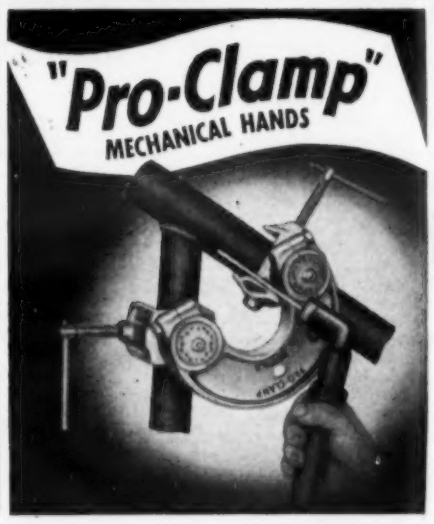

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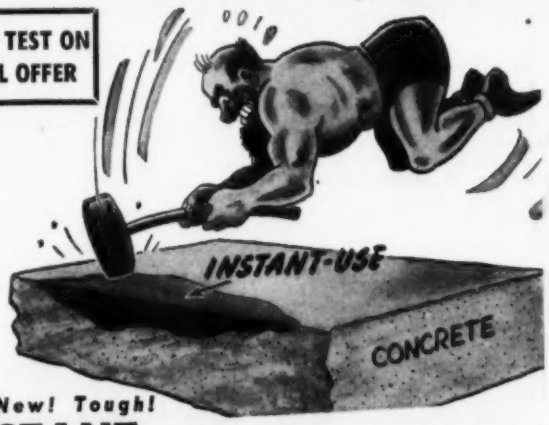

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